

249

CCAAACCCAG CTATCAACCC CATAAAGATA AAAAGAATGG TCTACTAAGC AAGCTTCCTT	7440
CCTCTGATTT TCAAACAAAA ATCTCTCATT GCTTACATTG TTCTCTCAAG CTTATTGGTC	7500
ACTATTATCA ATATAGGTGG TTCTTACTAT CTCCAAGGAA TCTTGATGA ATACATTCCA	7560
AATCAGATGA AATCAACTTT AGGAATCATC TCAGTTGGTC TGGTTATCAC CTATATCCTC	7620
CAACAAGTCA TGAGCTTCTC CAGAGATTAT CTCCTAACCG TTCTGAGTCA GAGATTAAGT	7680
ATTGATGTGA TTTTATCCTA TATTCGCCAT ATTTTGAAC TTCCCATGTC TTTCTTTGCG	7740
ACACGTCGTA CAGGAGAAAT CATTTACGA TTCACAGATG CTAACCTCTAT TATAGATGCC	7800
TTGGCTTCTA CCATTCTTTC TCTTTTCTG GATGTTTCTA TTCTGATTCT TGTAGGAGGC	7860
GTCTTACTGG CAAAAACCC TAATCTCTTC CTCTTCTC TTATTTCCAT TCCTATATAC	7920
ATGTTTCATCA TCTTTTCTTT TATGAAACCT TTCGAAAAA TGAACCATGA TGTCATGCAA	7980
AGTAATTCTA TGGTTAGCTC TGCCATTATC GAAGATATCA ACGGGATTGA AACTATAAAG	8040
TCGCTCACGA GTGAAGAAAA TCGCTATCAA AATATAGACA GCGAATTGT AGATTATTTG	8100
GAAAAATCCT TTAAGCTCAG TAAATATTCT ATTTTACAAA CGAGTTTAAA GCAGGGAACA	8160
AAATTAGTTC TGAATATCCT TATCCTATGG TTTGGCGCTC AATTAGTCAT GTCAAGTAAA	8220
ATTTCTATCG GTCAGCTGAT TACCTTTAAC ACACCTTTTT CTTACTTTAC AACTCCTATG	8280
GAAAAATATTA TCAACCTCCA AACCAAACCT CAATCTGCGA AGGTCGCTAA TAACCGTTTG	8340
AACGAAGTCT ATCTAGTCGA ATCTGAATTT CAAGTTCAAG AAAACCCGTG TCATTACAT	8400
TTTTTGATGG GCGATATTGA ATTTGATGAC CTTTCTTATA AGTATGGTTT TGGATGAGAT	8460
ACCTTAACAG ATATTAATCT CACGATTAAA CAAGGAGATA AGGTTAGCCT AGTTGGAGTT	8520
AGTGGTCTG GTAAACAAC TTTAGCCAAA ATGATTGTCA ATTTCTTTGA ACCCTACAAA	8580
GGGCATATTT CCATCAATCA TCAGGATATT AAAAACATTG ATAAAAAAGT CTTGCGCCGT	8640
CATATTAATT ACCTACCCCA ACAAGCCTAT ATCTTTAATG GCTCTATTTT GGAAAACTTA	8700
ACCTTGGGCG GTAATCATAT GATTAGTCAA GAAGATATTC TAAAAGCTTG TGAAGTAGCT	8760
GAAATCCGTC AAGACATTGA AAGAATGCCT ATGGGCTATC AAACCTCAGCT CTCTGATGGA	8820
GCTGGTCTAT CAGGAGGACA GAAGCAACGA ATCGCTCTCG CTCGTGCTCT TTAACTAAA	8880
TCTCCTGTTT TAATACTAGA TGAAGCTACT AGCGGTCTTG ATGTCTTGAC TGAGAAAAAG	8940
GTTATAGATA ATCTTATGTC TCTAACTGAT AAAACCATTC TCTTTGTAGC CCATCGTCTC	9000
AGTATAGCCG AACGAACCAA CCGTGTCATT GTTCTTGACC AGGGGAAAAT CATTGAAGTT	9060
GGTA	9064

250

(2) INFORMATION FOR SEQ ID NO: 18:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7780 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

CTCCATTTT	TTGATTTCAT	AAATAAACAA	CCTCTCTGTT	AATTTTGTAT	AATTATAACG	60
ATATCCAAGT	TACTTGTCAA	GTGTTTTTTA	AATTTTATC	TCAAAAATAT	TTTTTCGTTC	120
AAAAAAGGA	GCCATCAGTT	GATTTCAAGC	TCCCTTTTAT	ACAGAATTAA	ACTATTTTAT	180
AGTTCGACAA	TCTTACCTGT	TTCAAAGTAG	ACAACCCATT	CACAGATATT	TTTAGCATAG	240
TCACCGATAC	GCTCCAAGTA	GGAAATAACT	TGGAAATAAT	CACGACCCGT	AACAATGGCT	300
TCTGGATTTT	TCTTAATCTC	TTCAAGTCGCA	AGGTCACGGA	TAGTTTCAAA	ATAGTGGTTA	360
ATTTGCTCAT	CCATGGAGGC	CACCCGGTAT	CGCTCGTCAA	CAGAACCATT	AAGATAAAGA	420
TCAAGTGCTG	CTTCCACAAC	GCTTTTAACT	TCACGTCCCA	TTTTTTTAAAT	TTCTTCCTCT	480
ACAGCTGGAA	TGCGCTCTTC	CCCCTTCATA	CGGATGGTTG	CCTGGGCAAT	GGCTACAGCG	540
TGATCCCCCA	TACGCTCCAC	ATCTGATACA	GCCTTAAGGA	CAGTCAAGAC	TGTACGCAAA	600
TCTTGAGAGA	CTGGTGTGTG	GAGTGCATC	ATTTCAAATG	ATTTCTTTTC	CAGTTTCACT	660
TCGTATTCAT	TTACTTCTGC	ATCATCTTCG	ATGACCTCTT	TTGCCAGGTC	ACGGTCATGC	720
GTGACAAAAG	CACGTACCGT	ACGATTGATT	TGTGAGAGCA	CTTCTTGTC	CATAGCGTAG	780
AACTGGTTAT	GTAATTCTCT	TAAATCTTCT	TCAAATTGAG	ATCGTAACAT	CTTTCATCTC	840
CTTATCCAAA	TTTTCCTGTA	ATATAGTCTT	CCGTTTCCTT	GTGTTGGGGA	TCAAGGAACA	900
TCTGCTTGGT	ATCATTAAAT	TCAATCAAAT	CTCCATCTAG	GAAAAATCCT	GTCTTATCAG	960
AGATACGTGA	AGCTTGCTGC	ATGGAACGGG	TTACCAGAAG	CATGGTGTAC	TTGTCTTTTA	1020
GACCATACAA	GGTTTCCTCA	ATTTTACCAG	CTGAAATCGG	ATCCAAAGCC	GAAGTTGGCT	1080
CATCCAAGAG	GATGATTTTA	GGACTAGTTG	CCAAGACACG	GGCCACGCAG	ACACGCTGCT	1140
GTTGACCACC	TGACAATCCA	ATAGCTGAAT	CATATAGACG	ATCCTTGACC	TCATCCCAGA	1200
TAGAGGCACC	TTGCAAGGCT	TTTTCTACGG	CTTCATCCAG	AACCTGCTTA	TCCTTAATTC	1260
CATTGATACG	AAGCCCGTAG	ACAACATTCT	CATAGATAGT	CATAGGGAAA	GGATTAGGTT	1320
GTTGAAAAC	CATTCCGATT	TCCTTACGTA	ATTCAACCGT	ATCTGTACGC	GGACTGTAGA	1380
TGTTGTGACC	ATTGTACACC	ACGGATCCAG	TTGTGGTCAC	CTCTGGATTG	AGATCTCCCA	1440

251

TGCGGTTGAG	AGACTTGAGG	AGGGTTGACT	TCCCTGATCC	AGATGGACCA	ATCAAGGCTG	1500
TAATTTCTCT	AGGTTGGAAA	GATAGGGAAA	CACTATTCAA	AGCCTTCTTT	TTATTATAAT	1560
AAACGGACAG	GTCTGATACC	TGTAAAATCG	CATCTGTCAT	ACGGTTTCCT	TTCTAACCAA	1620
AGTGACCAGA	TACATAGTCA	TTGGTGGACT	GTAGCTTGGC	ATTTTGGAAA	ATAGTTGCAG	1680
TCTTGTCATA	CTCAATCAAA	TCACCCAAGT	AAAAGAAGCC	TGTATAGTCA	CTTGCACGAG	1740
CAGCCTGCTG	CATATTATGC	GTTACAATGA	TGATGGTAAA	GTTTTTCTTG	AGCTCAAACA	1800
TGGTCTCTTC	TAGTTGCATG	GTGCAATCG	GATCCAAGGC	TGAGGCTGGC	TCATCCATTA	1860
AGAGGATATC	TGGCTTAACA	GAGATGGCAC	GAGCGATACA	GAGACGTTGT	TGCTGACCAC	1920
CTGATAAGGT	CAAGGCTGAC	TTGTGGAGAT	CGTCTTTAAC	CTGATCCCAG	AGGGCAGCCT	1980
GACGAAGGGA	GGTTTCTACG	ATTTTCATCTA	GGACTTGCTT	ATCCTTAACT	CCAGCACGTT	2040
CATGCGCAAA	GGTAATATTA	CGGTAAATTG	ACTTAGCAAA	TGGATTGGGA	CGTTGAAAAA	2100
CCATTCCAAT	GTGTTTACGC	ATTCATAAAA	CGTTGATTTC	TGGACGGTTG	ACATCAATTC	2160
CACGATAGAG	AATCTGCCCA	GTTACTTTAG	CAATATCAAT	AGTATCATTC	ATGCGATTGA	2220
GACTGCGTAA	GTAGGTAGAT	TTCCCCGATC	CCGACGGGCC	AATCAAAGCT	GTAATTTTAT	2280
TTCTTTCAAA	TTGCATATCA	ATCCCCTTAA	TGGATTTCAT	TTTACCATAG	TAAACATGGA	2340
CATCCTTAGT	AGAAAGGGCT	ACTTTTCTTT	CAGGAAAGGT	AAGGATATGC	TTCTCATCCC	2400
AGTTATATGT	TGACATGGCT	TCTCCTTTAG	GCAGCGGTTA	ATTTCTTGTT	TAGATAGCTT	2460
CCGAACCTAC	GAGCTCCAAA	GTTAAAAATC	AGGATAAAGA	TCAGGAGCAC	AGCGGCAGAA	2520
CCTGCTGATA	CAATGGTTCC	ATCTGGAATA	GTGCCTTCAC	TATTGACTTT	CCAGATATGG	2580
ACAGCCAAGG	TTTCTGCTTG	ACGGAAGATA	GAGATGGGGC	TAGTCACACT	GAGGATATTC	2640
CAGTTAGACC	AGTCAAGAGC	TGGCGCCGAT	TGCCCTGCTG	TATAGATCAG	AGCTGCAGCT	2700
TCGCCAAAGA	TACGACCAGA	TGCCAAGACG	ACACCCGTTA	CAATACCTGG	AAGCGCTTCC	2760
GGAATAACAA	CATGAACCAC	TGTCTCCCAG	CGAGAAATCC	CAAGAGCCAG	ACCAGCCTCA	2820
CGTTGGGTAT	GGTGAACGTG	TTTCAAACCTA	TCCTCTACAT	TACGCGTCAT	CTGAGGCAAG	2880
TTAAAGACTG	TCAAGGCCAA	GGCACCTGAA	ATGATTGAAA	ATCCATACTC	AAACTGGACT	2940
ACAAAGATCA	AGTAACCAAA	GAGACCCACC	ACCACTGATG	GTAAAGAGGA	CAAAATTTC	3000
ATACAAGTCC	GCACAAAGTT	GGTAACAGGA	CCTTTTCTAG	CATATTCAGC	CAAGTAAATC	3060
CCAGCTCCCA	TAGAAAGAGG	TACAGAAATA	ATCAAGGTAA	TGACCAATAG	GAAAAAGGAA	3120
TTGTAAAGCT	GAATGCCAAT	CCCACCACCT	GCTTGAAAAG	CAGAAGACCT	TCCAGTCAAG	3180

252

AAAGACCAAG	AGATATGGGG	CAAGCCCCGA	ACCAAGATAT	AGAGAATCAA	GGAAGCCAAG	3240
ATTGTACAA	TGATGCTAGC	AATCGTATAG	AGGACAGCTG	TTGCAAGTTT	ATCTAATTTC	3300
TTAGCGCGCA	TAATTTTCT	TTCCTCTTTC	TTTCGTAATC	AATTTAATCA	CACTGTTAAA	3360
AACTAAGCTC	ATCAAGAGCA	GTACCAAGGC	CAGTGACCAG	AGAACATTAT	TATTTACAGT	3420
TCCCATGACA	GTGTTCCCAA	TTCCCATAGT	TAATATAGAA	GTTAAAGTTG	CAGCTGGTGT	3480
GGTCAAGGAA	GTTGGGATAA	CAGCTGAGTT	TCCGACAACC	ATCTGGATAG	CTAGAGCCTC	3540
ACCAAAGGCA	CGCGCCATCC	CAAAGACCAC	TGCAGTGAAA	ATACCAGAAC	GGGCCGCCTT	3600
CAAGATCACA	CGCCAGATAG	TCTGCCAGCG	AGTGGCTCCC	ATAGCGAAAC	TGGCTTCACG	3660
ATAATAACGA	GGAACCGCAC	GCAAGCTATC	CGTTGTCATA	AAGGTTACGG	TCGGCAAAAT	3720
CATGACAAAG	AGGACGAAA	TCCCTGACAA	AATCCCCAAA	CCAGTCCCAC	CAAAGACACT	3780
GCGAACAAAG	GGAACGACGA	CTTGCAAGCC	AATAAATCCG	TACACTACTG	AAGGAATCCC	3840
AACCAGGAGT	TCAATAGCTG	GTTGCAAAAT	CTTCGCCCCCT	TTTGGTGATA	CTTCGGTCAT	3900
AAAACTGCT	GCACCAATAG	CAAAGGGTGT	TGCGATAAGG	GCTGAGAGAA	TGGTAACGAT	3960
AAAGGAACCC	AAAATCATAG	GAAGGGCACC	AAATTCTTTA	CTAGAAGGAT	TCCAAGTTC	4020
TCCCCAAAGA	AAGTCAAAGA	TATTCACACC	ATTGACAAAG	AAGGTCGACA	AGCCTTTTGT	4080
CGCTACGAAA	ACCAAAATCA	TGGCCACAAG	GATGACTATC	AAAGAAAGAC	AGGCAAAGGT	4140
CAAACCTTTT	CCTAATTTCT	CCAGACGAGA	ATTCTTTGAT	GGAAGCAACA	TTTTCTTAGC	4200
TAATTCTTCT	TGATTCATTA	TTGTCTCCCT	TCCAACACTG	TCACAGTTCC	GGCAGCATCT	4260
TTTTCAACCT	TCATTTCCCT	AATCGGAATA	TACTTCAATC	CTTTGACAAT	CCCTTCTTGG	4320
GTCTCATCCG	AGAGAACAAA	ATTGAGAAAT	TCTGCAGCCA	ACTCATTGGG	CTGCCCCAAT	4380
GTATACATAT	GCTCATAAGA	CCACAAGGGC	CAATTATTGC	TACTTATATT	TTCTGGACTT	4440
AAGTCATAGC	CATTCAACTT	CATGCTTTTG	ACCGAATCAT	CTATATAGGT	AAGAGATAAA	4500
TAAGAGATAG	CTCCTGGACT	TTTTGATACG	ATTGATTTTA	CCGCTCCATT	TGAATCCTGC	4560
TCCTGACTTT	GCATGGCAGA	CTGACCTTCC	ATAATGACAG	TATCAAAGGT	AGCACGAGAG	4620
CCAGAGCCGG	CTGCCCGATT	GATAACAGAG	ATGGGTAAAGT	CCTTACCACC	AACCTCTTTC	4680
CAATTGGTTA	CCTCACCTAT	GAAGATTTGA	CGAAGTTGCT	CTGTCGTTAG	GTTATCAACA	4740
TCAACCTCCT	TATTGACAAT	CAGAGCCAAG	CCAGCTACCG	CGACCTTGTG	GTCAACAAGA	4800
GCAGAAGCAT	CAATTCCGTC	TTTTTCCTCA	GCAAATACAT	CTGAGTTTCC	TATATCAACT	4860
GCCCCAGACT	GAACCTGGGA	CAAGCCTGTA	CCAGAACCTC	CCCCTTGGAC	ATTGACCGTT	4920
TTTCCAACAT	GGATCGTGCC	AAATTCATCT	CCCCTACTTT	CAACCAAGGG	TTGCAAGGCA	4980

253

GTTGAGCCAA CAGCCGTTAT GGATTCTCCA CGATCAATCC AGCTAGCACA GCCTACTAAA	5040
CAAGCCGTCA GCCAAAAAGC GATAAGAGAC AGAGCAAGCT TTTTCTTTT TTCTACTGTT	5100
TTTCTCCTCG AAAATAATTA TGAATACTGT GAATTTTTTA AGTAGTTCTT TATGAGTTGA	5160
CGCATGAATT CTTACCAAAT TTCTGCGCAA TTGATTATTT ATATAATATA GGCTATATTA	5220
CTCTTTCCCTA ACCTCCTTTT TTCATATGTG GATAAAATCT CTGTCTATC CCTTCCCCCA	5280
TTGTCACCCA TTATAGTCAT TTCGTGTCTC TTTTCCCCT TTTAATGCA AGGGAAATTA	5340
CTCTCCTTAG ATGATAATCC AAAAGCTAGA AAGGTATCTC AAACCTCTCT ACTCTCCCAG	5400
ACTAGTTTAC AACTAAAAG AAAAGATTCT ATTTTATGAG AAATCTAGTT TACAAGCGGT	5460
AAGAACGCTA ATAACTAAAC TTCTTGTA CTGTGAAAAT CTCTTCAAAC CAGTGTTTTG	5520
AGCTATCTAT GGCTAGCTTC CTAGTTTGCT CTGTGATTTT CATTGAGTAG TAAAACTACA	5580
TGTAATGGCA ATCAAGATAT CAAGAATCAT CCTACTAAAA AAATCCATAC TTCTACTATA	5640
ACATAGAATA AGATATTTGA CTAGCATTTT CATTTGAATC TGAGGCCTTT TGGAAAATAA	5700
TTTTTCAAAA CATTTCCAGT AACCTTTGCA AAGCCCAAGC CATTGCCTTT AACCAAAAC	5760
TGGTACCAAC CATTTGGCAG ACTTTCTGCC AGCTGAACGG TTTCTCCAGC CGCATACTTG	5820
ACAAACGCTT CTTGGCCAAT TTCAACCGAC TGTTTCGACCT GACTCGGTTT CAAGGCTAAA	5880
CCAAGAGCGA AACTGGGCTC AAAGCGTTTC TTCTTAAAAG TACCCAGATG CAGTCCATTG	5940
CGAGCAATCT TGAGCTTCCA TAAATCTGGC AAAAGTTCTG GCAAGAGATA AAGCTGGTCT	6000
CCAAAAATCT GCAAGATACC CGGTAGATTG ACCTTCAAAT GGTTTTGGGC AAATTCCTGC	6060
CACAAGGCAA CTTGTTACAG GCTGAGGTTA CTCTTACTTG CCTTAAATTT AGGAGCTGGA	6120
TTGTTACCCT TAAACTGTAG ATGGGCAACA AACTGACCCT CTCCCTTAAA CTGATGAGGA	6180
TACATCCGAG CCGTTTCTGG CAGGTCAATA CCAGCTACCA TTCCATTGAT ATGCTCTACT	6240
GGCAACAAGT CAAAATCATA CTCTTCCAGC AACCAATTGA CAATCTCTTC GTTTTCCTCG	6300
GGTGCCCAAG TACAGGTCGA ATAAACCAGA TGACCACCTT CAGCTAACAT GGCTACTGCA	6360
TCCTCCAGAA TTTCTCTTTG CAAGCTAGCA CATTGACTCG GATAATCTAA GCTCCAATAG	6420
TCCATAGCAT CAGGTGCTT ACGAAACATT CCTTCACCAG AGCAAGGGGC ATCAAGAACG	6480
ATTAAGTCAA AATAGCCTTT AAAGACCTTG ACCAAGCGGT CGGCAGATTC ATTGGTCACC	6540
ACGACATTTG TCGCTCCAAA ACGCTCCATG TTTTCAACCA AAATCTTAGC CCGTTTGCTT	6600
GAAATTTTCAT TGGAAnCAAG TAGCCCTCC CCTGCTAGAT AGGCTGCCAG TTGAGTTGAT	6660
TTGCCCCCG GTGCAGCAGC CAAGTCCAAG ACCTTCATAC CAGGACTGGG TTGGGCTACT	6720

254

TGAGCCACCA TTTGAGCAGC AGGTTCTTGC GAATAAACTA AACCTGTAGC ATGCTCAGGC	6780
GATTTCCTTG AAACCTTCCC ATAGTGGCCC CAAGGGGTTT GAGTAATGGC ATCAGAAAAG	6840
GAAAGTTGCT CTTCTTTTAA GGGATTGACC CGAAAGGCCG AAACCGCTTC CTCCTCAAAA	6900
GAGGCAAGAA AATCTCTTGC CTCATCTCCT AGTATCTCTT TATATTTTTC AACAAATCCT	6960
TCTGGAAATT GCATTTAAGT TCTTTTCCTT TCGTAAATAT AGGACTGAAT TTCCTCCTGC	7020
ATCTCAAGAG GCACCATCAT GACCGCTGT CTGGTTTGAA AATCAGGAGC TTCACCAAAA	7080
AGGGTCACAA CCCGATAGCC CAGACTTTCC CCTAAAATAC TAGCTGCGGC ATAATCCCAT	7140
GGTTGCAGAT AAGTGAGATA GGTCAACAAA CGCCCTGACA AAATCTTGGC AAAACTAATG	7200
GCCGCACTTC CATAGACACG AACACCAAGA ACCGCTCGGC TCAAATCAGC CAGCCCCCAT	7260
TCATTGGTTT CCAGCATACC ACTATTCCCT GCAATGAGAA AATCTCCAAG TGGTTTAGTT	7320
TTAAAAGGAG CTAGGGACCT ATCATTTAGA CAAACTGGAA ATTCCCCACC ACCGTGGTAA	7380
CAATCCCCTT TGACCACATC ATAAATCAGA CCAACTGTC CCTGACCATT TTCAAAATAA	7440
GCCATCATAA CAGCAAAATC TTCCTGCTGG GCTACAAAAT TATTGGTACC ATCAATGGGA	7500
TCAATGACCC AAACCTTGCC CTCTTGAACC GAGGCTCGCA GACAACCTTC TTCAGCACAA	7560
ATCTTATCCT CAGGATAACG GGACAAAATC TCACCAACCA AGAGTTCCTG AACTTCTTTG	7620
TCCAGTCTGG TCACCAAATC TGTGGGAGAG GACTTGGTTT CAACACGCAA GTCTTCCTGC	7680
ATATGGTCAA GAATGTACTG ACCTGCTTTC TTAACAAGCT CTTTAGCAAA TTCAAATTTA	7740
CTTTCCAAGA GAAATCTTTC CTTCCTTTT TTCTTTGGGG	7780

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4820 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GTAATGATAT AGGAACACCA GGTGACCTGA TGGGACGTCG TAAGCCTATG AACTACTAGC	60
TGCTAAAGGC TTAAAGATG GTATGGTACC ATATATCTCA AACCAATACG AAGAAGAAGC	120
CAAACAAAAG GGCAAGACAA TCAATCTCTA CGGTAAAACA AGAGGTTTGG TTACAGATGA	180
CTTGGTTTTG GAAAAGGTAT TTAATAACCA ATATCATACT TGGAGTGAGT TTAAGAAAGC	240
TATGTATCAA GAACGACAAG ATCAGTTTGA TAGATTGAAC AAAGTTACTT TTAATGATAC	300
AACACAGCCT TGGCAAACAT TTGCCAAGAA AACTACAAGC AGTGTAGATG AATTACAGAA	360

255

ATTAATGGAC GTTGCTGTTC GTAAGGATGC AGAACACAAT TACTACCATT GGAATAACTA	420
CAATCCAGAC ATAGATAGTG AAGTCCACAA GCTCAAGAGA GCAATCTTTA AAGCCTATCT	480
TGACCAAACA AATGATTTTA GAAGTTCAAT TTTTGAGAAT AAAAAATAGT GTCTACTATT	540
AGGAAATAAA GTTTAAAAAG GTGATGAAGA ACAAACCAAG ATTCAAGCAG GAATTCCTAC	600
TGATAATGAA GTAAGTTATG ATCTTATTTA TCAGCAGGAA ACTCTTCCTG CAACAGGTTT	660
ATCAACTTCT GAGCTTACAG CTTTAGGCCT ATTAGCTGTT GGTAGTTTAG TTCTTTTGGT	720
TCATAATATG ACGGGAACAG TTTTTTGCTC CCTCTGAAAA GTCATCATTT GATGGCTTTT	780
TTCTATATAG GGTAAAAGAT AGGGTAAAAG GCTATCATCG GACAAAATAA AGAAGGCATG	840
ATATAATATA AAGTAGATTT CTATGTCATA AAACAAGAAC TGTTTGGACA TCATTCATTT	900
GAAAACCTCT TATGTTCAAA CAATAGTAAA ATAAAATAGG GGATCTAAAT CCTTGCTATG	960
AAAGGAAAAA ACTCAATGGC TACTATTCAA TGGTTTCCTG GTCACATGTC TAAAGCTCGT	1020
CGACAGGTGC AGGAGAATTT AAAATTTGTT GATTTTGTGA CGATTTTAGT AGATGCACGC	1080
TTGCCTCTAT CTAGTCAAAA TCCTATGTTG ACCAAGATTG TTGGTGATAA ACCAAAACCTC	1140
TTGATTTTAA ACAAGGCCGA CTTGGCTGAT CCAGCAATGA CCAAGGAATG GCGTCAGTAT	1200
TTTGAATCAC AAGGAATCCA GACGCTAGCT ATCAACTCCA AAGAGCAAGT GACTGTAAAA	1260
GTGTGAACAG ATGCGGCCAA GAAGCTCATG GCTGATAAGA TTGCTCGCCA GAAAGAACGT	1320
GGGATTCAGA TTGAAACCTT GCGTACTATG ATTATCGGGA TTCCAAACGC TGGTAAATCA	1380
ACTCTGATGA ACCGTTTGGC TGGTAAAAAG ATTGCTGTTG TTGGAAACAA GCCAGGGGTC	1440
ACAAAAGGTC AACAATGGCT TAAAACCAAT AAAGACCTGG AAATCTTGGA TACACCGGGG	1500
ATTCTCTGGC CTAAGTTTGA GGATGAAACT GTTGCACTTA AGTTGGCATT GACTGGAGCT	1560
ATCAAAGACC AGTTGCTTCC TATGGATGAG GTTACCATTT TTGGTATCAA TTATTTCAAA	1620
GAACATTATC CAGAAAAGCT GGCTGAACGC TTCAAACAAA TGAAAATTGA AGAAGAAGCG	1680
CCTGTGATTA TTATGGATAT GACCCGCGCC CTCGGTTTCC GTGATGACTA TGACCGTTTT	1740
TACAGTCTCT TCGTGAAGGA AGTCCGTGAT GGCAAACTCG GTAACATATAC CTTAGATACA	1800
TTGGAAGACC TCGATGGCAA CGATTAAAGA AATCAAAGAA TTCCTTGTGA CAGTCAAGGA	1860
GTTAGAAAGC CCTATTTTTT TAGAGCTTGA AAAGGATAAT CGCTCAGGAG TTCAAAGGA	1920
AATCAGCAAG CGTAAAAGAG CCATTCAAGC TGAATTAGAT GAAAATTTGC GCTTGGAAATC	1980
CATGCTTTCT TATGAAAAAG AACTTTATAA GCAAGGATTG ACCTTAATTG CAGGTATTGA	2040
TGAGGTTGGT CGTGGTCCTC TTGCTGGTCC TGTAGTCGCT GCGGCCGTTA TTTTATCTAA	2100

256

AAATTGTAAG ATTAAAGGTC TCAACGACAG CAAGAAAATT CCTAAAAAGA AACATCTGGA	2160
GATTTTCCAA GCCGTTCAAG ACCAAGCCTT GTCGATTGGA ATTGGTATCA TAGATAATCA	2220
GGTCATCGAC CAAGTCAACA TCTATGAAGC AACCAAAC TA GCCATGCAAG AAGCAATCTC	2280
CCAGCTCAGC CCTCAACCAG AGCACCTTTT GATTGATGCC ATGAAACTGG ACTTGCCCAT	2340
TTCAAAACC TCCATTATCA AAGGAGATGC CAACTCCCTC TCTATCGCAG CAGCATCTAT	2400
AGTAGCCAAG GTAACACGTG ATGAATTGCT GAAAGAATAC GATCAGCAGT TCCCTGGCTA	2460
TGATTTGCT ACTAATGCAG GATATGGCAC AGCTAAACAT CTGGAAGGCC TCACAAAAC	2520
AGGAGTTACC CCAATTCACC GAACCAGCTT TGAACCCGTT AAATCACTGG TTTTAGGTAA	2580
AAAAGAAAGT TAATTGAAAG GAAATAACAT GGAGGAACAG TCGGAAATAG TCCGTTCTAA	2640
GAAAGAATTC GCCTTTGCAT CCAGCACTAT ACTATCCCAA GTTGGTCGAG GAATCATTTG	2700
CGGCCTCATC GTTGAATTA TCGTCGGATC CTTTCGTTTC TTAATTGAAA AGGGCTTCCA	2760
CCTGATACAA GGAGTTTATC AAGATCAAGG GTACTTAGTG CGCAATCTTT TTGTACTGGT	2820
TTTGTTTTAT ATACTCATCT GTTGGCTCAG TGCCAAACTA ACACGGTCAG AAAAAGATAT	2880
TAAAGGCTCA GGAATTCCTC AAGTCGAAGC CGAACTGAAA GGCTCATGT CCCTCAACTG	2940
GTGGGGCATT CTTTGAAAAA AATATGTGCT AGGTATTCTT GCTATTGCCA GTGGACTCAT	3000
GCTGGGTCGA GAGGGACCCA GCATTCAACT TGGAGCAGTT GGTGGTAAAG GAATTGCCAA	3060
GTGGCTCAAA TCCAGTCCAG TAGAGGAACG TTCCTTGATT GCCAGTGGAG CTGCAGCAGG	3120
TTTAGCCGCA GCCTTTAATG CTCCTATTGC AGCACTTCTC TTTGTTGTAG AAGAAGTCTA	3180
TCACCATTTT TCGCGCTTTT TCTGGGTCTC AACTCTAGCA GCCAGCATCG TAGCAAAC	3240
TGTGTCTCTA CTCATGTTTC GTTTGACACC AGTATTGGAT ATGCCAGATA ACATTCCTCC	3300
CATGACCCTA GATCAGTATT GGATATATCT CGTCATGGGA ATTTTCCTTG GATTTTCAGG	3360
TTTTCTCTAT GAGAAAGCTG TATTAAACGT TGAAGAGTT TATGACTTGA TTGGTCAAAA	3420
AATCCATTG GATAGGGCTT ATTATCCCAT CTGGCTTTT ATCCTTATCA TACCAGTCGG	3480
AATCTTCTTA CCTCAAATCA TTGGTGGCGG AAATCAGCTT GTCCTTTCTT TAACTGAACA	3540
AAATTTTAGT TTCCAAGTTT TATTAGCTTA CTTTTAATC CGCTTTATTT GGAGTATGAT	3600
TAGCTATGGA AGTGGACTGC CAGGAGGAAT TTTCTCCCC ATTTTAGCTC TTGGTTCTTT	3660
GCTTGGTGCC TTAGTTGGTG TTATCTGTGT CAATCTTGA CTGTGTCAGT AAGAGCAATT	3720
CCCTATATTT GTCATTCTAG GAATGAGTGG CTATTTTGA GCCATATCAA AAGCTCCCTT	3780
AACCGCTATG ATCCTCGTAA CTGAGATGGT AGGAGATATT CGCAACCTTA TGCCACTTGG	3840
TCTTGCTACT CTTGTTTCTT ATATTATCAT GGATTGCTC AAAGGTACGC CAGTCTATGA	3900

257

AGCCATGCTG GAAAAAATGC TTCCAGAAGA AGTATCTAGC GAAGGAGAAG TTACACTTAT	3960
CGAAATACCA GTTCTGATA AAATTGCTGG GAAACAAGTT CATGAACTCA ACTTACCACA	4020
CAACGTCCTC ATCACAACTC AAGTCCATAA TGGCAAGAGC CAAACAGTTA ACGGCTCAAC	4080
CAGAATGTAT CTGGGTGATA TGATTCACCT GGTATTCCA AAAAGTGAAA TTGGAAAAGT	4140
CAAAGATTTG TTGTTGTAGT ATGAGTATTT ACATAATTTA TGTATGTAA ATGATCAGTT	4200
TGATTTATTT AGAAAACCGA TTCTCAGGAA TGAGATCGGT TATTTTTTAC TGATGAGGAA	4260
TTTTACATAT AAATAATTGA ACTTTATTAA AAATAAGACT ATAATTAAGT TAGAAATGAT	4320
AAAGTATAAA GCTAGAAAGG AGTTTACTGT ATCAAATCTG TACAGTAAGA TTAATCAT	4380
GAAAAAGAAA ACAATAGCAA TTATATAGAG AAATGAAATA GAAATAGGAT AAAACAATCA	4440
GGACAATCAA ATCAATTTCT AGCAATGTTT TAGAAGTCCA GATGTACTAT TCTAGTTTCA	4500
ATCTATTATA CAATGTGTTT TGTATCTCAT AGCTCCTTAT ATAGCTCTTC AGTTATGTAG	4560
TATTAACAGA AGTTTAGTGG GTGAGATTTT TATTATTTTC CTTATTCTGT TTTGTTTGT	4620
GGCTAAGTC TTTTATCAC TTGAAAAAC TCCTATAACA TCTTCCGAA AACTATAAT	4680
TTTCTTGAAA AATATACAAG TCTATGCTAT ACTACTAGTA TACTTACTTA TGGAGAAAAT	4740
ACATGAAACG TGAGATTTTA CTGGAACGAA TCGACAAACT AAAACAATC ATGCCCTGGT	4800
AAGTTCTGGA ATACTACCA	4820

(2) INFORMATION FOR SEQ ID NO: 20:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21338 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

CTACGACATC ATGATTAACA GTCATGCGCT ACTACCAACT GAGCTATGGC GGATAAAATA	60
GTCCGTACGG GATTCGAACC CGTGTTACCG CCGTGAAAAG GCGGTGTCTT AACCCCTTGA	120
CCAACGGACC TTCTATCTGT AGCAGATATA ACCATTATAT CAATTTCTTG CTAATTGTCA	180
ATCACTTTTG AGATTTTTTC TCTAAAATAT CTTTAAATTT TCTAATTTT AATCTTGAAA	240
TAGGACAACG ATGGTCTTCA TAGAAAACAA TTTCTAAGTT TTTTCGATCA ATTTCTCTGA	300
TATTACCTAT ATTTACCAA AATGACTTGT GAGGAGAATA AAATCGCTGA GTATGTTTGT	360
CCTTTTCCTG AATATCTGTC ATGGTACCAT AAAACTCTTT TGCAAAATTC TTACCAATAA	420

258						
TGCGCAATTT	ATGAGATACC	CCTGTTGTTT	CAATATACAA	AATATCATGG	TAAGGAATTT	480
TTAAATCATT	TCCCTTGTA	TTGTAGTCGA	AATAATCTAC	AACATCTTCA	TTTTCAAGTA	540
ACATACTCTT	CGTGTAGAAG	ATATTTTGCT	CAATTCTCTT	CTTAAACATC	TCATCATTGA	600
TATCCTTATC	AACAAAATCT	AGGGCTGATA	CCTGGTATTT	ATAGGTTAGA	GTCGCAAAC	660
CTGATCGACT	AGTGATAAAG	ACGATAATAG	CGTAAGGATT	GTAATGACGA	ATGAGCTGAG	720
CCACTTCAAA	TCCCTTTTTC	TCAATTCCAT	GAATATCGAT	ATCTAGGAAA	TAAAGCTGAT	780
TTACTTCATC	ATTTTCAATG	TATTCTTCAA	ATTCACGGAC	TTTTCCCGTT	GTCTTGTATG	840
ATATTGGAAT	ATTCGATTCT	TTCGAAATTT	CATCCAATAT	TCTCTCTAGT	CTCACTTGAT	900
GTTCAATAAC	ATCTTCTAAA	ATTAAACTTT	TCATTCAAAT	TCCCTCTTAA	ATCTAATGAT	960
TTGTCTAAAT	GTACTGCCTT	CCATCTCTGT	TTCTAAAATA	ATATTGTTGT	ACTTATCTAG	1020
TAGTTCTTTC	ACATTATTTA	ATCCGACTCC	GCGATTCTTT	CCCTTAGTGG	AGAATCCTAA	1080
GGCAAATAGA	TCTCCTGAAG	GAGTCATCGT	CATTTTACAT	GAATTCTGAA	TCACAATAAC	1140
TGTTTCAGTT	TCCATCTTAA	TAACGCTAC	TTCCATCTGC	TTTTTATAGC	TATCAGCCGA	1200
TCCTTCGACA	GCATTATTCA	ATAAACGCT	CATGATACGA	ACCAAATCCA	ATAGTTCAAT	1260
TGGAAGCTTG	GTAATCGTAT	CTTTTACTTC	CAGTGTA AAC	TCTACACCAT	TATTTGAGC	1320
ATAGACAATT	GACTGAGCAA	CCAACTTCG	TAAAGCTGAG	TCTTCTATGT	TGTTCAAATC	1380
AAAGTAAGTG	TACTTATCTG	AACGCAATTT	ATGATTGCT	TTGACTAAAA	CTTCATTGTA	1440
AATTCTGTCA	ATTTCTGTG	AATTACCACT	GTCAATTGCC	ATCTGCATGC	TGACAAGCAT	1500
TCCAGCATAA	TCATGTCGAA	AACCACGGAT	TTCATTATAC	AGACCAACAA	TTTCATCTGT	1560
GTAATTCTGT	AAATGTTTCT	GTTCAAATTT	CTTCTGCTTC	AAAGCAATCT	CTTTCTCCAT	1620
TTGAACCTTA	TGAGAATTCA	TTGCAAAGAA	GGTCAAAAGG	AGAGAGATAA	AGACAATAGA	1680
TGACAAAATA	CTTCCAAAAC	TATTCAAATG	TTAATCGTA	CTTACCATAT	CTGAAACGAA	1740
AGATACAATA	TGTAGCAATA	GTAAAGCAAA	AAATACTTTT	TTCAAGAAAG	GATAAAGGTA	1800
GTCCTTGTCA	AAATAGGCTA	GTTCCAAATG	GAAATAGTAA	ATGATTTTTA	ATGTAACAAA	1860
ATAGGTTAAC	ACCGTCACAA	CGAAAAAGAA	TGGGAAATGA	TATTGTAAAA	CAAAATTATC	1920
TCCTGTTATA	GAGGAGAAAA	TTACGGACAG	AAAGTTATGA	GTGCTCTCAT	ATAAAAGAGA	1980
TAGTAGTAAA	CTTAGGAATA	GTCCTCTATC	CCTCTCATAC	TGTTTCATCC	ATCGAAAATA	2040
GGAATATAAG	CCCAAAGGAA	ATAAAAATCT	TTCAATCCCT	ATTTTATCTA	AATATAGAAG	2100
ATAAAAGGAA	AATTCAAGTA	CTATTTCACT	TAGTAATGTA	TAAGCACCAA	AAACGTATAA	2160
TTCTTTTCTA	TTTATTCGAC	CTTTACAAAT	TAAACGGTAA	CTGTGACTAA	TAATTAAAAA	2220

ATGAACAATA	ACTGTCCCAA	ATCCAAGTAA	ATCCATTACT	CTTCTCCTT	ATTCATTAC	2280
TTTTTTCGTA	GGAAAAGAAA	ATCAAGGATG	ATTCTTGAAA	TCCTCATCTC	CCCACCTTTA	2340
ATCTTTTGTA	AGTCTTTTTC	CTTCAAAGCT	ACAAACTGTT	CCAATTTAAC	TGTGTTTTTC	2400
ATAATAAAAT	CTCCTAAAAT	GTTTTTCTT	GTAAGCTAAC	TTACAAAAAC	CATTATACAA	2460
AATGGAATTT	CGTTTtagat	AAAATTCTCT	CAACTGTCAT	TTTTTCTCC	CAAAGTGTAC	2520
TTTTTTAAGA	AAAAAGCCGG	GAAAATTCCC	AGCTTTGCTA	TTATATTGAT	CCCAGCAGGA	2580
TTCGAACCTG	CGACCGTTCG	CTTAGAAGGC	GAATGCTCTA	TCCAGCTGAG	CTATGAGACC	2640
TAATACAATT	ATTCTACCAA	AAATTCAATT	AAAAGTCAAT	TTTCTATTTA	TGGTAGGGGA	2700
ATCCCTGCTG	AATCGTAAAA	GCGCGATAGA	TTTGTTC AAC	AAGAACTAGT	CTCATTA ACT	2760
GATGGGGTAA	GGTTAGGCGA	CCAAA CTGA	CAGAAAGATT	GGCTCTATTT	TTTACAGATG	2820
ATGATAATCC	TAAACTTCCC	CCAATAATA	AAGTAAGAGT	AGAAAATCCT	TTTATAGAAG	2880
TTTCTTCTAA	CTGCTTACTA	AATTCTTCTG	AGAAGAAAAGT	TTTCCCTTCA	ATGGCTAACA	2940
CAATAACGAA	ATCACGGTCA	GCAATTTT TG	ATAAAAATTCT	CTGACCTTCT	ATTTCTAAAA	3000
TCTTTTGATT	TTCTGATTCA	CTGGCCTTAT	CTGGTGT TTT	TTCATCTGAT	AACTCAATCA	3060
TTTCAA ACTT	AGCAAATCTA	GAAATTCGTT	TTGAATACTC	TGCGATACCA	TCTTTTAAAT	3120
ACTTTTCTTT	CAGTTTCCCA	ACTGTTACAA	CTTAAATTTT	CATGACTCTA	TTCTAACATA	3180
TTCTCTATTT	TTTCACATCT	TATTCACAAA	ATAAAAAATA	GATTTCAATT	AAGAAAATCA	3240
CAATTTCAAA	AGAGTTATCC	ACAGTTTGTG	TAAAAC TTTT	GTGTTTAAGT	TATAATTAAG	3300
CTAGTCAGTT	TATACTTTCA	GTAATTCAAA	CATATGGAGG	CAAATATGAA	ACATCTAAAA	3360
ACATTTTACA	AAAAATGGTT	TCAATTATTA	GTCGTTATCG	TCATTAGCTT	TTTTAGTGGA	3420
GCCTTGGGTA	GTTTTTCAAT	AACTCAACTA	ACTCAAAAAA	GTAGTGTA AA	CAACTCTAAC	3480
AACAATAGTA	CTATTACACA	AACTGCCTAT	AAGAACGAAA	ATTCAACAAC	ACAGGCTGTT	3540
AACAAAGTAA	AAGATGCTGT	TGTTTCTGTT	ATTACTTATT	CGGCAAACAG	ACAAAATAGC	3600
GTATTTGGCA	ATGATGATAC	TGACACAGAT	TCTCAGCGAA	TCTCTAGTGA	AGGATCTGGA	3660
GTTATTTATA	AAAAGAATGA	TAAAGAAGCT	TACATCGTCA	CCAACAATCA	CGTTATTAAT	3720
GGCGCCAgCA	AAGTAGATAT	TCGATTGTCA	GATGGGACTA	AAGTACCTGG	AGAAATTGTC	3780
GGAGCTGACA	CTTCTCTGTA	TATTGCTGTC	GTCAAAATCT	CTTCAGAAAA	AGTGACAACA	3840
GTAGCTGAGT	TTGGTGATTC	TAGTAAGTTA	ACTGTAGGAG	AAACTGCTAT	TGCCATCGGT	3900
AGCCCGTTAG	GTTCTGAATA	TGCAAATACT	GTCACTCAAG	GTATCGTATC	CAGTCTCAAT	3960

260

AGAAATGTAT CCTTAAATC GGAAGATGGA CAAGCTATTT CTACAAAAGC CATCCAAACT	4020
GATACTGCTA TTAACCCAGG TAACTCTGGC GGCCCACTGA TCAATATTCA AGGGCAGGTT	4080
ATCGGAATTA CCTCAAGTAA AATTGCTACA AATGGAGGAA CATCTGTAGA AGGTCTTGGT	4140
TTCGCAATTC CTGCAAATGA TGCTATCAAT ATTATTGAAC AGTTAGAAAA AAACGGAAAA	4200
GTGACGCGTC CAGCTTTGGG AATCCAGATG GTTAATTTAT CTAATGTGAG TACAAGCGAC	4260
ATCAGAAGAC TCAATATTCC AAGTAATGTT ACATCTGGTG TAATTGTTCG TTCGGTACAA	4320
AGTAATATGC CTGCCAATGG TCACCTTGAA AAATACGATG TAATTACAAA AGTAGATGAC	4380
AAAGAGATTG CTTTCATCAAC AGACTTACAA AGTGCTCTTT ACAACCATTC TATCGGAGAC	4440
ACCATTAAGA TAACCTACTA TCGTAACGGG AAAGAAGAAA CTACCTCTAT CAAACTTAAC	4500
AAGAGTTCAG GTGATTTAGA ATCTTAATTG ACATCTATGT AAAGAAAGCT TTACATAAGA	4560
GAAAAGATGT GTTAGTGTAG AATCATGGAA AAATTTGAAA TGATTTCTAT CACAGATATA	4620
CAAAAAATC CCTATCAACC CCGAAAAGAA TTTGATAGAG AAAAAGTAGA TGAAGTAGCA	4680
CAGTCTATCA AAGAAAATGG GGTCAATCAA CCGATTATTG TTCGTCAATC TCCTGTTATT	4740
GGTTATGAAA TCcTTGCAGG AGAGAGACGC TATCGGCTT CACTTTTAGC TGGTCTACGG	4800
TCTATCCCAG CTGTTGTTAA ACAGATTTC Aaccaagaga TGATGGTCCA GTCCATTATT	4860
GAAAATTTAC AGAGAGAAAA TTAAACCCA ATAGAAGAAG CACGCGCCTA TGAATCTCTC	4920
GTAGAGAAAG GATTCACCCA TGCTGAAATT GCAGATAAGA TGGGCAAGTC TCGTCCATAT	4980
ATCAGCAACT CCATTCGTTT ACTTTCCTTG CCAGAACAGA TTCTTTCAGA AGTAGAAAAT	5040
GGCAAACTAT CACAAGCCCA TGCGCGTTCC CTAGTTGGGT TAAATAAGGA ACAACAAGAC	5100
TATTTCTTTC AACGGATTAT AGAAGAAGAT ATTTCTGTAA GGAAATTAGA AGCTCTTCTG	5160
ACAGAGAAAA AACAAAAGAA ACAGCAAAAA ACTAATCATT TCATACAAAA TGAAGAAAAA	5220
CAGTTAAGAA AACTACTCGG ATTAGATGTA GAAATTAAAC TATCTAAAAA AGACAGTGGA	5280
AAAATCATT TTTCTTTTTC AAATCAAGAA GAATATAGTA GAATTATCAA CAGCCTGAAA	5340
TAAGGCTGTT CTTTTATTTT TTTATCTCAC AAGGTTATCC ACTATGTTTT TCGATAAAAA	5400
GCTTAATAAA TCAATAATTT CTTCCTTTAT CCCCAACCTG TGGATAAAGT TTGGTAACAT	5460
TGTGGATTAT TTTTCACAGC TTGTGGAAAA TTCTTGCTAT CTATGGTAAA ATATCTCTAG	5520
TATTAAACTT TTAAATAGTA AAGGAGGAGA AAGGATTGAA AGAAAAACAA TTTTGGAATC	5580
GTATATTAGA ATTTGCACAA GAAAGACTGA CTCGATCCAT GTATGATTTT TATGCTATTC	5640
AAGCTGAACT CATCAAGGTA GAGGAAAATG TTGCCACTAT ATTTCTACCT CGCTCTGAAA	5700
TGGAAATGGT CTGGGAAAAA CAACTAAAAG ATATTATTGT AGTAGCTGGT TTTGAAATTT	5760

261

ATGACGCTGA AATAACTCCC CACTATATTT TCACCAAACC TCAAGATACG ACTAGCTCAC	5820
AAGTTGAAGA AGCTACAAAT TTAACCTCTTT ATAACATATAG TCCAAAGTTA GTATCTATTC	5880
CTTATTTCAGA TACGGGATTA AAAGAAAAGT ATACCTTTGA TAACTTTATT CAAGGGGATG	5940
GAAATGTTTG GGCTGTATCA GCCGCTTTAG CTGTCTCTGA AGATTGGCT CTGACCTATA	6000
ACCTCTTTTT TATCTATGGA GGACCAGGCC TTGGTAAGAC TCACTTATTA AACGCTATTG	6060
GAAATGAAAT TCTAAAAAAT ATTCCTAATG CGCGTGTTAA ATATATCCCT GCCGAAAGCT	6120
TTATTAATGA CTTTCTTGAT CACCTAAGAC TTGGGGAAAT GGAAAAGTTT AAAAAGACCT	6180
ATCGTAGTCT TGATCTTTTG TTAATCGATG ATATCCAGTC ACTCAGCGGA AAAAAAGTCG	6240
CAACTCAGGA AGAATTTTTC AATACCTTTA ACGCCCTTCA TGACAAGCAA AAACAGATTG	6300
TCCTAACGAG TGATCGTAGT CCAAAACATC TAGAAGGGCT CGAGGAGAGG CTTGTCACGC	6360
GTTTTAGTTG GGGATTGACA CAACTATCA CCCCCCTGA CTTTGAAACA CGTATTGCCA	6420
TTTTACAAAG TAAGACGGAA CATTTAGGCT ACAATTTCCA AAGTGATACT CTAGAATACC	6480
TAGCTGGGCA ATTTGATTCA AATGTTGAG ATCTTGAGGG AGCCATCAAC GACATCACTT	6540
TAATTGCCAG AGTAAAAAAA ATCAAGGATA TCACTATTGA TATTGCTGCA GAAGCCATTA	6600
GAGCCCGCAA ACAAGATGTT AGCCAAATGC TCGTCATCCC AATTGATAAA ATCCAAACTG	6660
AAGTTGGTAA CTTTTATGGT GTTAGTATCA AAGAAATGAA GGGAAGTAGA CGCCTTCAAA	6720
ATATTGTTTT GGCCCCGCAA GTAGCCATGT ATTTATCTAG AGAACTAACA GATAATAGTC	6780
TTCCAAAAAT TGGGAAGGAA TTTGGGGGAA AAGATCATAC CACAGTCATT CATGCCCATG	6840
CCAAAATAAA ATCTTTGATT GATCAAGACG ATAATTTACG TTTAGAAATT GAATCAATCA	6900
AAAAGAAAAA CAAATAATTT GTGGATAACT TTTAGTTTTT TATCTTTTTT ATCCACATTT	6960
TTTAAACAAG CTAAAAAACT TGATATGACT TGTTTAAAGG CTGTTTTCCA CAGATTTTAC	7020
AGACTCTATT ATTACTATTA TCTTTCTAAT ACTAAAAATA AATAAAGGAG AATCCATGAT	7080
TCATTTTCA ATTAATAAAA ATTTATTCTT ACAAGCATTA AATACTACTA AGAGAGCTAT	7140
TAGTTCTAAA AATGCCATTC CTATTTTATC AACAGTAAAA ATTGACGTGA CCAATGAAGG	7200
TATTACTTTA ATTGGTTCAA ATGGTCAAAT TTCAATTGAA AATTTTATTT CTCAAAAAAA	7260
TGAAGATGCT GGTGTTGTAA TTAATCTTTT AGGTTCGATC CTTCTTGAAG CTTCTTTCTT	7320
TATCAATGTA GTATCTAGTT TACCTGATGT AACTCTTGAT TTAAAGAAA TTGAACAAAA	7380
TCAAATTGTT TTAACCAAGT GCAAATCAGA AATTACCCTA AAAGGAAAAG ATAGCGAACA	7440
ATATCCACGA ATCCAAGAAA TTTCAGCAAG CACTCCTTTA ATACTTGAAA CAAAATTACT	7500

262						
CAAGAAAATT	ATTAATGAAA	CAGCCTTTGC	TGCAAGTACA	CAAGAGAGTC	GTCCGATTTT	7560
AACAGGTGTC	CACTTCGTAT	TGAGTCAACA	CAAAGAGTTA	AAAACAGTTG	CAACAGACTC	7620
TCATCGCCTA	AGCCAGAAAA	AATTGACTCT	TGAAAAAAT	AGTGATGATT	TTGATGTCGT	7680
AATTCCTAGC	CGTTCTCTAC	GCGAATTTTC	AGCGGTATTT	ACAGATGATA	TCGAAACTGT	7740
AGAGATTTTC	TTTGCCAATA	ACCAAATCCT	CTTTAGAAGC	GAAAATATTA	GCTTCTATAC	7800
TCGTCTCCTA	GAAGGAAACT	ATCCTGATAC	AGATCGCTTG	ATTCCAACAG	ACTTTAACAC	7860
TACTATTACT	TTTAATGTGG	TAAACTTACG	CCAGTCAATG	GAGCGTGCCC	GTCTTTTATC	7920
AAGTGCGACT	CAAAATGGTA	CTGTGAAACT	TGAAATTAAG	GATGGGGTTG	TTAGCGCCCA	7980
TGTTCACTCT	CCAGAAGTTG	GTAAAGTAAA	CGAAGAAATC	GATACTGATC	AGGTTACTGG	8040
TGAAGATTTG	ACCATTAGTT	TCAACCCAAC	TTACTTGATT	GATTCTCTTA	AAGCTTTAAA	8100
TAGCGAAAAG	GTGACTATTA	GCTTTATCTC	AGCTGTTCGT	CCATTTACTC	TTGTGCCAGC	8160
AGATACTGAC	GAAGACTTCA	TGCAGCTCAT	TACACCAGTT	CGTACAAATT	AAGTGAAAGA	8220
GGTTGAGCCT	GGCTCGCCTC	TTTTATGATA	TAATCGAAAA	AGAAAAGGAG	AGTAGTATGT	8280
ATCAAGTTGG	AAATTTTGTT	GAGATGAAAA	AATCACACGC	TTGTACAATC	AAGTCGACTG	8340
GTAAAAAGGC	TAATCGTTGG	GAAATTACAC	GTGTAGGAGC	AGATATCAAA	ATAAAATGTA	8400
GTAATTGTGA	GCATGTTGTC	ATGATGGGGC	GATATGATTT	TGAGCGAAAA	ATGAATAAAA	8460
TTATTGACTG	AGAACCCTTA	GTTAGAGGGT	TAGCACTTTA	TCCCTTTTTG	TGTTATAATA	8520
TTAGGGATTG	AAATGAAAAC	GGAGAATGAG	AAATATGGCT	TTGACAGCAG	GTATCGTTGG	8580
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AGCAAACTAC	CCATTGCGA	CGATTGATCC	AAATGTTGGA	ATGGTGGAAG	TTCCAGATGA	8700
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ATTTACAGAT	ATTGCAGGGA	TTGTAAAAGG	AGCTTCAAAA	GGAGAGGGGC	TAGGGAATAA	8820
ATTCTTGGCC	AATATTCGTG	AAGTAGATGC	GATTGTTTAC	GTAGTTTCGTG	CTTTTGATGA	8880
TGAAAATGTA	ATGCGCGAGC	AAGGACGTGA	AGACGCCTTT	GTAGATCCAC	TTGCAGATAT	8940
TGATACCATT	AATCTGGAAT	TGATTCTTGC	TGACTTAGAA	TCAGTGAACA	AACGATATGC	9000
GCGTGTAGAA	AAGATGGCAC	GTACGCAAAA	AGATAAAGAA	TCAGTAGCAG	AATTCAATGT	9060
TCTTCAAAAG	ATTAAACCAG	TCCTAGAAGA	CGGGAAATCA	GCTCGTACCA	TTGAATTTAC	9120
AGATGAGGAA	CAAAGGTTG	TCAAAGGTCT	TTTCCTTTTG	ACGACTAAAC	CAGTTCTTTA	9180
TGTAGCTAAT	GTGGACGAGG	ATGTGGTTTC	AGAACCTGAC	TCTATCGACT	ATGTCAAACA	9240
AATTCGTGAA	TTTGCAGCGA	CAGAAAATGC	TGAAGTAGTC	GTTATTTCTG	CGCGTGCTGA	9300

263

GGAAGAAATT TCTGAATTGA ATGATGAAGA TAAAAAAGAG TTTCTTGAAG CCATTGGTTT	9360
GACAGAATCA GGTGTAGATA AGTTGACGCG TGCAGCTTAC CACTTGCTTG GATTGGGAAC	9420
TTACTTCACA GCTGGTGAAA AAGAAGTTCG CGCTTGGACT TTCAAACGTG GTATGAAGGC	9480
TCCTCAAGCA GCTGGTATTA TCCACTCAGA CTTTGAAAAA GGCTTTATTC GTGCAGTAAC	9540
CATGTCATAT GAAGATCTAG TGAAATACGG ATCTGAAAAG GCCGTAAAAG AAGCTGGACG	9600
CTTGCGTGAA GAAGGAAAAG AATATATCGT TCAAGATGGC GATATCATGG AATCCGCTT	9660
TAATGTCTAA AAATTAATAA ATGGTGTCAG TTAGGTTGGA AAAAAATTCC AACCCTTTGT	9720
GCTTTTGAAA GAAAAAATAA ATGACCAAAT TACTTGTAGG CTTGGGAAAT CCAGGGGATA	9780
AATATTTTGA AACAAAACAC AATGTTGGTT TTATGTTGAT TGATCAACTA GCGAAGAAAC	9840
AGAATGTCAC TTTTACACAC GATAAGATAT TTCAAGCTGA CCTAGCATCC TTTTTCCTAA	9900
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ATCTTGACAT GGAAGTTGGG AAAATTCTGT TAAGAGCAAA AGGCTCAGCA GGTGGTCATA	10080
ATGGTATCAA GTCTATTATT CAACATATAG GAAGCTCAGT CTTTAACCGT GTTAAGATTG	10140
GAATTGGAAG ACCTAAAAAT GGTATGTCAG TTGTTTCATCA TGTTTTGAGT AAGTTTGACA	10200
GGGATGATTA TATCGGTATT TTACAGTCTG TTGACAAAAG TGACGATTCT GTAAACTACT	10260
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TATTAGATTT ATTCTCAGAA AATGATCAGA TTAATAAATG GCATCAAAAT TTAACAGATA	10380
AGAAAAGACA ACTAATACTT GGTTTATCAA CATCTACTAA GGCTCTTGCA ATTGCAAGCA	10440
GTTTAGAAAA AGAAGATAGG ATTGTGTTAT TGACGTCAAC TTATGGAGAA GCAGAAGGAC	10500
TTGTTAGTGA TCTTATTTCT ATCTTGGGTG AGGAACTCGT CTATCCATTT TTGGTAGATG	10560
ATGCTCCTAT GGTGGAGTTT TTGATGTCTT CACAGGAAAA AATTATTTCA CGGGTTGAAG	10620
CCTTGCGTTT TTTGACTGAT TCATCTAAGA AAGGGATTTT AGTTTGTAAT ATCGCAGCAA	10680
GTCGATTGAT TTTACCGTCT CCCAATGCAT TCAAAGATAG TATTGTAAAA ATCTCAGTTG	10740
GTGAAGAATA TGATCAACAC GCGTTTATCC ATCAGTTAAA GGAAAATGGC TATCGAAAAG	10800
TTACTCAAGT ACAAACCTCAG GGCGAATTTA GTCTTCGAGG AGATATTTTA GATATTTTGT	10860
AAATATCCCA GTTAGAACCT TGTCGAATTG AGTTTTTTGG TGATGAAATT GATGGTATCA	10920
GGTCATTTGA AGTAGAAACA CAATTATCGA AAGAAAATAA GACAGAACTC ACTATCTTTC	10980
CAGCTAGTGA TATGCTTTTG AGAGAAAAGG ATTATCAACG AGGACAGTCA GCTTTAGAAA	11040

264

AACAAATTTC	AAAAACTTTA	TCACCTATTT	TGAAATCATA	CCTAGAAGAA	ATTCTTTCAA	11100
GTTTTCACCA	AAAACAAAGT	CATGCAGACT	CTCGGAAGTT	TTTATCTTTG	TGCTATGATA	11160
AGACATGGAC	TGTCTTTGAT	TATATTGAAA	AAGATACTCC	AATATTCTTT	GATGATTATC	11220
AAAAATTGAT	GAATCAGTAT	GAAGTCTTTG	AAAGAGACTT	AGCGCAGTAC	TTTACAGAAG	11280
AATTACAGAA	TAGTAAAGCA	TTTTCTGATA	TGCAGTATTT	TTCTGATATT	GAACAAATCT	11340
ATAAAAAACA	AAGTCCAGTG	ACCTTTTCT	CTAATCTTCA	AAAGGGTTTA	GGAAATCTCA	11400
AATTTGACAA	AATTTATCAA	TTCAATCAAT	ATCCTATGCA	GGAATTTTTC	AATCAGTTTT	11460
CTTTTCTAAA	AGAAGAAATT	GAACGATATA	AAAAAATGGA	TTACACCATT	ATTCTGCAGT	11520
CTAGCAATTC	AATGGGAAGT	AAAACATTGG	AGGATATGTT	AGAGGAATAT	CAGATTAAAT	11580
TGGATTCTAG	AGATAAGACA	AATATCTGTA	AAGAATCTGT	AACTTAATA	GAGGGTAATC	11640
TCAGACATGG	TTTTCATTTT	GTAGATGAAA	AGATTTTATT	GATAACTGAA	CATGAGATTT	11700
TTCAAAAGAA	ATTAAAGCGT	CGTTTTTCGAA	GACAACATGT	TTCAAATGCA	GAGAGATTAA	11760
AAGATTACAA	TGAAC TTGAA	AAAGGGGACT	ATGTTGTCCA	TCATATCCAT	GGGATTGGTC	11820
AATATCTAGG	AATTGAAACC	ATTGAAATCA	AGGGAATTCA	TCGCGATTAT	GTCAGTGTCC	11880
AATACCAAAA	TGGTGATCAA	ATTTCTATCC	CCGTGGAACA	GATTCATCTA	CTGTCCAAAT	11940
ATATTTCAAG	TGATGGTAAA	GCTCCAAAAC	TCAATAAATT	AAATGACGGT	CATTTTAAAA	12000
AGGCCAAGCA	AAAGGTTAAG	AACCAGGTAG	AGGATATAGC	TGATGATTTA	ATCAAAC TCT	12060
ACTCTGAACG	TAGTCAGTTG	AAGGGTTTTG	CTTTCTCAGC	TGATGATGAT	GATCAAGATG	12120
CCTTTGATGA	TGCTTTCCCT	TATGTTGAAA	CGGATGATCA	ACTTCGTAGT	ATTGAGGAAA	12180
TCAAGAGGGA	TATGCAGGCT	TCTCAGCCAA	TGGATCGACT	TTTAGTTGGG	GATGTTGGTT	12240
TTGGAAAGAC	TGAAGTTGCT	ATGCGTGCAG	CCTTTAAAGC	AGTCAATGAT	CACAAACAGG	12300
TTGTCAATTCT	AGTTCCGACG	ACGGTTTTAG	CGCAACAGCA	CTATACGAAT	TTTAAGGAAC	12360
GATTCCAAAA	TTTTGCAGTT	AATATTGATG	TGTTGAGTCG	CTTTAGAAGT	AAAAAAGAGC	12420
AGACTGCAAC	ACTTGAAAAA	TTGAAAAACG	GTCAAGTCGA	TATTTTGATT	GGAACACATC	12480
GTGTTTGTGTC	AAAAGATGTT	GTGTTTGCTG	ATTTGGGCTT	GATGATTATT	GATGAGGAAC	12540
AGCGATTTGG	TGTCAAGCAT	AAGGAAACTT	TGAAAGAACT	GAAGAAACAA	GTGGATGTCC	12600
TAACCTTGAC	CGCTACGCCA	ATCCCTCGTA	CCCTCCATAT	GTCTATGCTG	GGAATCAGAG	12660
ATTTATCTGT	TATTGAAACT	CCGCCGACTA	ATCGCTATCC	TGTTTCAGACC	TATGTTTGGG	12720
AAAAGAATGA	TAGTGTCATT	CGTGATGCTG	TCTTGCGTGA	AATGGAGCGT	GGAGGTCAAG	12780
TTTATTATCT	TTACAACAAA	GTTGACACAA	TTGTTTCAGAA	GGTTTCAGAA	TTACAGGAGT	12840

265

TGATTCCGGA	GGCTTCGATT	GGATATGTTC	ATGGTCGAAT	GAGTGAAGTC	CAGTTGGAAA	12900
ATACTCTATT	AGACTTTATT	GAGGGACAAT	ACGATATCTT	GGTGACGACT	ACTATTATTG	12960
AGACAGGGGT	GGACATTCCA	AATGCTAATA	CTTTATTTAT	TGAAAATGCG	GACCATATGG	13020
GCTTGTCAAC	CTTATATCAG	TTAAGAGGAA	GAGTCGGTCG	TAGTAATCGT	ATTGCTTATG	13080
CTTATCTCAT	GTATCGTCCA	GAAAAATCAA	TCAGTGAAGT	CTCTGAAAAG	AGATTAGAAG	13140
CGATTAAAGG	ATTTACAGAA	TTGGGCTCTG	GCTTTAAGAT	TGCAATGCGA	GATCTTTCGA	13200
TTCGTGGAGC	AGGAAATCTT	TTAGGAAAAT	CCCAGTCTGG	TTTCATTGAT	TCTGTTGGTT	13260
TTGAATTGTA	TTCGCAGTTA	TTAGAGGAAG	CTATTGCTAA	ACGAAACGGT	AATGCTAACG	13320
CTAACACAAG	AACCAAAGGG	AATGCTGAGT	TGATTTTGCA	AATTGATGCC	TATCTTCCTG	13380
ATACTTATAT	TTCTGATCAA	CGACATAAGA	TTGAAATTTA	CAAGAAAATT	CGTCAAATTG	13440
ACAACCGTGT	CAATTATGAA	GAGTTACAAG	AGGAGTTGAT	AGACCGTTTT	GGAGAATACC	13500
CAGATGTAGT	AGCCTATCTG	TTAGAGATTG	GTTTGGTCAA	ATCATACTTG	GACAAGGTCT	13560
TTGTTCAACG	TGTGGAAAGA	AAAGATAATA	AAATTACAAT	TCAATTTGAA	AAAGTCACTC	13620
AACGACTGTT	TTTAGCTCAA	GATTATTTTA	AAGCTTTATC	CGTAACGAAC	TTAAAAGCAG	13680
GCATCGCTGA	GAATAAGGGA	TTAATGGAGC	TTGTATTTGA	TGTCCAAAAT	AAGAAAGATT	13740
ATGAAATTTT	AGAAGGTTTG	CTGATTTTGT	GAGAAAGTTT	ATTAGAGATA	AAAGAGCTA	13800
AGGAAGAAAA	TTCCATTGTA	TATTTTCTT	CTATAAAATA	GATAAAAATG	GTACAATAAT	13860
AAATTGAGGT	AATAAGGATG	AGATTAGATA	AATATTTAAA	AGTATCGCGA	ATTATCAAGC	13920
GTCGTACAGT	CGCAAAGGAA	GTAGCAGATA	AAGGTAGAAT	CAAGGTTAAT	GGAATCTTGG	13980
CCAAAAGTTC	AACGGACTTG	AAAGTTAATG	ACCAAGTTGA	AATTCGCTTT	GGCAATAAGT	14040
TGCTGCTTGT	AAAAGTACTA	GAGATGAAAG	ATAGTACAAA	AAAAGAAGAT	GCAGCAGGAA	14100
TGTATGAAAT	TATCAGTGAA	ACACGGGTAG	AAGAAAATGT	CTAAAAATAT	TGTACAATTG	14160
AATAATTCCT	TTATTCAAAA	TGAATACCAA	CGTCGTCGCT	ACCTGATGAA	AGAACGACAA	14220
AAACGGAATC	GTTTTATGGG	AGGGGTATTG	ATTTTGATTA	TGCTATTATT	TATCTTGCCA	14280
ACTTTTAATT	TAGCGCAGAG	TTATCAGCAA	TTACTCCAAA	GACGTCAGCA	ATTAGCAGAC	14340
TTGCAAACTC	AGTATCAAAC	TTTGAGTGAT	GAAAAGGATA	AGGAGACAGC	ATTTGCTACC	14400
AAGTTGAAAG	ATGAAGATTA	TGCTGCTAAA	TATACACGAG	CGAAGTACTA	TTATTCTAAG	14460
TCGAGGGAAA	AAGTTTATAC	GATTCCTGAC	TTGCTTCAAA	GGTGATAAAA	TGGAATAATT	14520
ATTAGACGTA	ATAGAGCAAT	TTTTGAGTTT	GTCAGATGAA	AAGCTGGAAG	AATTGGCTGA	14580

266

TAAAAATCAA	TTATTGCGTT	TACAAGAAGA	AAAGGAAAGG	AAGAATGCGT	AAATTCTTAA	14640
TTATTTTGTT	GCTACCAAGT	TTTTTGACCA	TTTCAAAAGT	CGTTAGCACA	GAAAAAGAAG	14700
TCGTCTATAC	TTCGAAAGAA	ATTTATTACC	TTTCACAATC	TGACTTTGGT	ATTTATTTTA	14760
GAGAAAAAT	AAGTTCTCCC	ATGGTTTATG	GAGAGGTTCC	TGTTTATGCG	AATGAAGATT	14820
TAGTAGTGGA	ATCTGGGAAA	TTGACTCCCA	AAACAAGTTT	TCAAATAACC	GAGTGGCGCT	14880
TAAATAACA	AGGAATTCCA	GTATTTAAGC	TATCAAATCA	TCAATTTATA	GCTGCGGACA	14940
AACGATTTTT	ATATGATCAA	TCAGAGGTAA	CTCCAACAAT	AAAAAAAGTA	TGGTTAGAAT	15000
CTGACTTTAA	ACTGTACAAT	AGTCCTTATG	ATTTAAAAGA	AGTGAAATCA	TCCTTATCAG	15060
CTTATTCGCA	AGTATCAATC	GACAAGACCA	TGTTTGTAGA	AGGAAGAGAA	TTTCTACATA	15120
TTGATCAGGC	TGGATGGGTA	GCTAAAGAAT	CAACTTCTGA	AGAAGATAAT	CGGATGAGTA	15180
AAGTTCAAGA	AATGTTATCT	GAAAAATATC	AGAAAGATT	TTTCTCTATT	TATGTTAAGC	15240
AACTGACTAC	TGGAAAAGAA	GCTGGTATCA	ATCAAGATGA	AAAGATGTAT	GCAGCCAGCG	15300
TTTTGAAACT	CTCTTATCTC	TATTATACGC	AAGAAAAAAT	AAATGAGGGT	CTTTATCAGT	15360
TAGATACGAC	TGTAAAATAC	GTATCTGCAG	TCAATGATTT	TCCAGGTTCT	TATAAACCAG	15420
AGGGAAGTGG	TAGTCTTCCT	AAAAAAGAAG	ATAATAAAGA	ATATTCTTTA	AAGGATTTAA	15480
TTACGAAAGT	ATCAAAAGAA	TCTGATAATG	TAGCTCATAA	TCTATTGGGA	TATTACATTT	15540
CAAAACCAATC	TGATGCCACA	TTCAAATCCA	AGATGTCTGC	CATTATGGGA	GATGATTGGG	15600
ATCCAAAAGA	AAAATTGATT	TCTTCTAAGA	TGGCCGGGAA	GTTTATGGAA	GCTATTTATA	15660
ATCAAAATGG	ATTTGTGCTA	GAGTCTTTGA	CTAAACAGA	TTTTGATAGT	CAGCGAATTG	15720
CCAAAGGTGT	TTCTGTAAAA	GTAGCTCATA	AAATTGGAGA	TGCGGATGAA	TTTAAGCATG	15780
ATACGGGTGT	TGTCTATGCA	GATTCTCCAT	TTATTCTTTC	TATTTTCACT	AAGAATTCTG	15840
ATTATGATAC	GATTTCTAAG	ATAGCCAAGG	ATGTTTATGA	GGTTCTAAAA	TGAGGGAACC	15900
AGATTTTTTA	AATCATTTTC	TCAAGAAGGG	ATATTTCAAA	AAGCATGCTA	AGGCGGTCTT	15960
AGCTCTTTCT	GGTGGATTAG	ATTCCATGTT	TCTATTTAAG	GTATTGTCTA	CTTATCAAAA	16020
AGAGTTAGAG	ATTGAATTGA	TTCTAGCTCA	TGTGAATCAT	AAGCAGAGAA	TTGAATCAGA	16080
TTGGAAGAA	AAGGAATTAA	GGAAGTTGGC	TGCTGAAGCA	GAGCTTCCTA	TTTATATCAG	16140
CAATTTTTCA	GGAGAATTTT	CAGAAGCGCG	TGCACGAAAT	TTTCGTTATG	ATTTTTTTCA	16200
AGAGGTCATG	AAAAAGACAG	GTGCGACAGC	TTTAGTCACT	GCCCACCATG	CTGATGATCA	16260
GGTGGAACG	ATTTTTATGC	GCTTGATTTCG	AGGAACTCGC	TTGCGCTATC	TATCAGGAAT	16320
TAAGGAGAAG	CAAGTAGTCG	GAGAGATAGA	AATCATTCGT	CCCTTCTTGC	ATTTTCAGAA	16380

267

AAAAGACTTT	CCATCAATTT	TTCACTTTGA	AGATACATCA	AATCAGGAGA	ATCATTATTT	16440
TGCAATCGT	ATTCGAAATT	CTTACTTACC	AGAATTGGAA	AAAGAAAATC	CTCGATTTAG	16500
GGATGCAATC	TTAGGCATTG	GCAATGAAAT	TTTAGATTAT	GATTTGGCAA	TAGCTGAATT	16560
ATCTAACAAT	ATTAATGTGG	AAGATTTACA	GCAGTTATTT	TCTTACTCTG	AGTCTACACA	16620
AAGAGTTTTA	CTTCAAACTT	ATCTGAATCG	TTTCCAGAT	TTGAATCTTA	CAAAAGCTCA	16680
GTTTGCTGAA	G TTCAGCAGA	TTTTAAAATC	TAAAAGCCAG	TATCGTCATC	CGATTAAAAA	16740
TGGCTATGAA	TTGATAAAAG	AGTACCAACA	GTTTCAGATT	TGTA AAAATCA	GTCCGCAGgC	16800
TGATGAAAAG	GAAGATGAAC	TTGTGTTACA	CTATCAAAAT	CAGGTAGCTT	ATCAAGGATA	16860
TTTATTTTCT	TTTGGA CTTC	CATTAGAAGG	TGAATTAATT	CAACAAATAC	CTGTTTCACG	16920
TGAAACATCC	ATACACATTC	GTCATCGAAA	AACAGGAGAT	GTTTTGATTA	AAAATGGGCA	16980
TAGAAAAAAA	CTCAGACGTT	TATTTATTGA	TTTGAAAAATC	CCTATGGAAA	AGAGAAACTC	17040
TGCTCTTATT	ATTGAGCAAT	TTGGTGAAAT	TGTCTCAATT	TTGGGAATTG	CGACCAATAA	17100
TTTGAGTAAA	AAAACGAAAA	ATGATATAAT	GAACACTGTA	CTTTATATAG	AAAAAATAGA	17160
TAGGTAAAAA	ATGTTAGAAA	ACGATATTAA	AAAAGTCCTC	GTTTCACACG	ATGAAATTAC	17220
AGAAGCAGCT	AAAAAACTAG	GTGCTCAATT	AACTAAAGAC	TATGCAGGAA	AAAATCCAAT	17280
CTTAGTTGGG	ATTTTAAAAG	GATCTATTCC	TTTTATGGCT	GAATTGGTCA	AACATATTGA	17340
TACACATATT	GAAATGGACT	TCATGATGGT	TTCTAGCTAC	CATGGTGGAA	CAGCAAGTAG	17400
TGGTGTTATC	AATATTAAAC	AAGATGTGAC	TCAAGATATC	AAAGGAAGAC	ATGTTCTATT	17460
TGTAGAAGAT	ATCATTGATA	CAGGTCAAAC	TTTGAAGAAT	TTGCGAGATA	TGTTTAAAGA	17520
AAGAGAAGCA	GCTTCTGTTA	AAATTGCAAC	CTTGTTGGAT	AAACCAGAAG	GACGTGTTGT	17580
AGAAATTGAG	GCAGACTATA	CTTGCTTTAC	TATCCCAAAT	GAGTTTGTAG	TAGGTTATGG	17640
TTTAGACTAC	AAAGAAAATT	ATCGTAATCT	TCCTTATATT	GGAGTATTGA	AAGAGGAAGT	17700
GTATTCAAAT	TAGAAAGAAT	AATCTTTAAT	GAAAAAACAA	AATAATGGTT	TAATTAAAAA	17760
TCCTTTTCTA	TGGTTATTAT	TTATCTTTTT	CCTTG TGACA	GGATTCCAGT	ATTTCTATTC	17820
TGGGAATAAC	TCAGGAGGAA	GTCAGCAAAT	CAACTATACT	GAGTTGGTAC	AAGAAATTAC	17880
CGATGGTAAT	GTA AAAAGAT	TAACTTACCA	ACCAAATGGT	AGTGTTATCG	AAGTTTCTGG	17940
TGTCTATAAA	AATCCTAAAA	CAAGTAAAGA	AGAAACAGGT	ATT CAGTTTT	TCACGCCATC	18000
TGTTACTAAG	G TAGAGAAAT	TTACCAGCAC	TATTCTTCCT	GCAGATACTA	CCGTATCAGA	18060
ATTGCAAAAA	CTTGCTACTG	ACCATAAAGC	AGAAGTAACT	GTTAAGCATG	AAAGTTCAAG	18120

268						
TGGTATATGG	ATTAATCTAC	TCGTATCCAT	TGTGCCATTT	GGAATTCTAT	TCTTCTTCCT	18180
ATTCTCTATG	ATGGGAAATA	TGGGAGGAGG	CAATGGCCGT	AATCCAATGA	GTTTTGGACG	18240
TAGTAAGGCT	AAAGCAGCAA	ATAAAGAAGA	TATTAAAGTA	AGATTTTCAG	ATGTTGCTGG	18300
AGCTGAGGAA	GAAAAACAAG	AACTAGTTGA	AGTTGTTGAG	TTCTTAAAAG	ATCCAAAACG	18360
ATTCACAAAA	CTTGGAGCCC	GTATTCCAGC	AGGTGTTCTT	TTGGAGGGAC	CTCCGGGGAC	18420
AGGTAAAACT	TTGCTTGCTA	AGGCAGTCGC	TGGAGAAGCA	GGTGTTCCAT	TCTTTAGTAT	18480
CTCAGGTTCT	GACTTTGTAG	AAATGTTTGT	CGGAGTTGGA	GCTAGTCGTG	TTCGCTCTCT	18540
TTTTGAGGAT	GCCAAAAAAG	CAGCACCAGC	TATCATCTTT	ATCGATGAAA	TTGATGCTGT	18600
TGGACGTCAA	CGTGGAGTCG	GTCTCGGCGG	AGGTAATGAC	GAACGTGAAC	AAACCTTGAA	18660
CCAACCTTTG	ATTGAGATGG	ATGGTTTTGA	GGGAAATGAA	GGGATTATCG	TCATCGCTGC	18720
GACAAACCGT	TCAGATGTAC	TTGACCCTGC	CCTTTTGCGT	CCAGGACGTT	TTGATAGAAA	18780
AGTATTGGTT	GGTCGTCCTG	ATGTTAAAGG	TCGTGAAGCA	ATCTTGAAAG	TTACGCTAA	18840
GAATAAGCCT	TTAGCAGAAG	ATGTTGATTT	GAAATTAGTG	GCTCAACAAA	CTCCAGGCTT	18900
TGTTGGTGCT	GATTTAGAGA	ATGTCTTGAA	TGAAGCAGCT	TTAGTTGCTG	CTCGTCGCAA	18960
TAAATCGATA	ATTGATGCTT	CAGATATTGA	TGAAGCAGAA	GATAGAGTTA	TTGCTGGACC	19020
TTCTAAGAAA	GATAAGACAG	TTTCACAAAA	AGAACGAGAA	TTGGTTGCTT	ACCATGAGGC	19080
AGGACATACC	ATTGTTGGTC	TAGTCTTGTC	GAATGCTCGC	GTTGTCCATA	AGGTTACAAT	19140
TGTACCACGC	GGCCGTGCAG	GCGGATACAT	GATTGCACTT	CCTAAAGAGG	ATCAAATGCT	19200
TCTATCTAAA	GAAGATATGA	AAGAGCAATT	GGCTGGCTTA	ATGGGTGGAC	GTGTAGCTGA	19260
AGAAATTATC	TTTAATGTCC	AAACCACAGG	AGCTTCAAAC	GACTTTGAAC	AAGCGACACA	19320
AATGGCACGT	GCAATGGTTA	CAGAGTACGG	TATGAGTGAA	AAACTTGGCC	CAGTACAATA	19380
TGAAGGAAAC	CATGCTATGC	TTGGTGCACA	GAGTCCTCAA	AAATCAATTT	CAGAACAAAC	19440
AGCTTATGAA	ATTGATGAAG	AGGTTTCGTT	ATTATTAAAT	GAGGCACGAA	ATAAAGCTGC	19500
TGAAATTATT	CAGTCAAATC	GTGAAACTCA	CAAGTTAATT	GCAGAAGCAT	TATTGAAATA	19560
CGAAACATTG	GATAGTACAC	AAATTAAAGC	TCTTTACGAA	ACAGGAAAGA	TGCCTGAAGC	19620
AGTAGAAGAG	GAATCTCATG	CACTATCCTA	TGATGAAGTA	AAGTCAAAAA	TGAATGACGA	19680
AAAATAACCC	TGAGAGAGGC	TGGAGCCTCT	CTTTTTTGTG	CAGTTTAGGA	GCTAAAGGGA	19740
ACAGAATGGA	GAAAATGGAA	CAAATGTGTT	TTCTAATCTG	TTAGACTGTA	TCTAGAAAGG	19800
GGAAAATTAT	GATTAAAGAA	TTGTATGAAG	AAGTCCAAGG	GACTGTGTAT	AAGGTAGAA	19860
ATGAATATTA	CCTTCATTTA	TGGGAATTGT	CGGATTGGGA	GCAAGAAGGC	ATGCTCTGCT	19920

269

TACATGAATT GATTAGTAGA GAAGAAGGAC TGGTAGACGA TATTCCACGT TTAAGGAAAT	19980
ATTTCAAGAC CAAGTTTCGA AATCGAATTT TAGACTATAT CCGTAAACAG GAAAGTCAGA	20040
AGCGTAGATA CGATAAAGAA CCCTATGAAG AAGTGGGTGA GATCAGTCAT CGTATAAGTG	20100
AGGGGGGTCT CTGGCTAGAT GATTATTATC TCTTTCATGA AACACTAAGA GATTATAGAA	20160
ACAAACAAAG TAAAGACAAA CAAGAAGAAC TAGAACGCGT CTTAAGCAAT GAACGATTTC	20220
GAGGGCGTCA AAGAGTATTA AGAGACTTAC GCATTGTGTT TAAGGAGTTT ACTATCCGTA	20280
CCCACTAGTA AGTCATGCAA AAAAAATGAA AAAAATTAGA AAAAGTAGTT GACAAAGTTT	20340
GAAAAGGCTG TATAATAGTA AGAGTTGAAA ATAACAACCTC AGGTCCGTTG GTCAAGGGGT	20400
TAAGACACCG CCTTTTCACG GCGGTAACAC GGGTTCGAAT CCCGTACGGA CTATGGTATG	20460
TTGCGTCAGG ACCACTTGAT GAAAAAAGT TTAATAAATCT TCAAAAAAGT	20520
GTTGACAAGC GAAAGCAGTT GTGATATACT AATATAGTTG TCGCTTGAGA GAAGCAAGTG	20580
ACAAAGACCT TTGAAACTG AACAAGACGA ACCAATGTGC AGGGCGCTAC AACGTAAGTT	20640
GTAGTACTGA ACAATGAAAA AAACAATAAA TCTGTCAGTG ACAGAAATGA GTAAGAACTC	20700
AAACTTTTTA ATGAGAGTTT GATCCTGGCT CAGGACGAAC GCTGGCGGCG TGCCTAATAC	20760
ATGCAAGTAG AACGCTGAAG GAGGAGCTTG CTTCTCTGGA TGAGTTGCGA ACGGGTGAGT	20820
AACGCGTAGG TAACCTGCCT GGTAGCGGGG GATAACTATT GGAAACGATA GCTAATACCG	20880
CATAAGAGTA GATGTTGCAT GACATTGCT TAAAAGGTGC ACTTGCATCA CTACCAGATG	20940
GACCTGCGTT GTATTAGCTA GTTGGTGGGG TAACGGCTCA CCAAGGCGAC GATACATAGC	21000
CGACCTGAGA GGGTGATCGG CCACACTGGG ACTGAGACAC GGCCAGACT CCTACGGGAG	21060
GCAGCAGTAG GGAATCTTCG GCAATGGACG GAAGTCTGAC CGAGCAACGC CGCGTGAGTG	21120
AAGAAGGTTT TCGGATCGTA AAGCTCTGTT GTAAGAGAAG AACGAGTGTG AGAGTGGAAG	21180
GTTCACTAGT TGACCGTATC TTACCAGAAA GGGACGGCTA ACTACGTGCC AGCAGCCGCG	21240
GTAATACGTA GGTCCCAGC GTTGTCCGGA TTTATTGGGC GTAAAGCGAG CGCAGGCGGT	21300
TAGATAAGTC TGAAGTTAAA GGCTGTGGCT TAACCATA	21338

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6273 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

270

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

TGTTTTTAAA GAGCCGTGTC TGGATAGACT TTCGGACGCA ACGCTCTATT AGATAATGAA	60
CTGCCTATAC ACAAGATTTC TAACCTTAGT CGACATGAGC TGAAACCTCT TATTTGTTAA	120
GTAGTTCACA AAATATTATA CACCTATTTT ATGAATAGTC AACTGTCTTT ACAGTAAAT	180
TTTAGAAAAT CATGAAAATT TTCTCTTTCT TTCCATTTTA AGTGACATTC AGTCATTCTC	240
ACATCAAAAA AGCCCAGACG AAATTGTCTG AGCATTTCTT TATCTAGTCG TTAAAGGAAG	300
TTGAGTTCAG TATGTTTAAA GTCTCTGTCC CATCATTTCT TCAACAAACC TTGTCTTGG	360
AGAAACTCCT TGGCTACTTG CTTTGCTGAC TTGCCTTCAA CACCGACTTG GTAGTTGAGC	420
TGGCTCATCT GGCTTTCTGT AATCTTACCA GCCAATGTAT TAAGAACTCT TTCCAACCT	480
GGGTGTTTCT TGAGAAGAGC TTCTTTCATG AGTGGAGCCC CTTGATAAGG TGGGAAGAGT	540
TGCTTGTCAT CTTCCAAGAC CTGTAAATCA TAACGCTCCA ATTCCGCATC AGTCGAATAG	600
GCATCCGTGA TTTGAATATC CCCTGACTGA ATAGCCTGAT AGCGAAGGGC TGGCTCAATG	660
GTCGCTACAT TGAGATTGAG ACCATACATT GATTGCAAGC CCTTATTTCC ATCTTCACGG	720
TCGTTAAACT CGAGTGTAAT ACCTGCCTTC AACTGCCCTT CCACTTTTTT CAAGTCTGAA	780
ATGGTCTTCA AGCCATATTC TTGAGCAATC TTTTTCGGAA CAGCTACAGC ATAGGTGTTT	840
TGATAAGACA TGGGTTTGAG ATAGGCTAGA TGATCCTGCT TAGCAATGCC ATCACGCGCC	900
ACCTGATAAA CCTGTTCTGG TTCATGACTC ACCTTGGGTG ATGGTTGAAG CAAACTTTCA	960
GTCACCGTAC CAGTAAATTC AGGATAGATG TCAATATCGC CTTTTTTCAG AGCTTCATAA	1020
AGGAAGCTTG TCTTCCCAA ATTCGGTTTA ACAGTCGCAG TCATGCTGGT ATTTTCTTCA	1080
ATCAGCAACT TATACATATT GGCCAAAATT TCTGGTTCTG GACCTATTTT CCCAGCAATA	1140
ACCAAGTTTT CCTTCTCTTT TTGAACCAA AGAGCTGGAC TATAAGACAG ACCCAGTAAT	1200
AAAGCCACCA AGGCAAAACC TGAGAAAATC GTCCGTAATT TTGCTTTTTC CATCACTTTT	1260
AGTAGGAAGT TAAAGGCAAT GGCTAGCACT GCAGAAGAAA GTGCCCAAT CAAAATCAAA	1320
CTGGCATTAT TACGGTCAAT TCCCAAAAGA ATAAAGGAAC CTAGTCCCCC TGCACCAATC	1380
AAGGCCGCCA AGGTGCGCGT ACCGATAATC AAAACAGCTG CCGTCCGAAT CCCAGACATG	1440
ATAACAGGCA TGGCGAGTGG AATTTCAAAT TTCTTGAGAC GTTCCCATCT GGTCAATCCA	1500
AAGGCAATCC CAGCCTCTTG CAGGTTTCGA TCAATTCCTC TCAGCCCAGT GATAGTATTT	1560
TGCAAAATAG GGAAAATCGC ATAAATCACT AGAGCTGTCA AAGCCGGCAA GTTCCCAATT	1620
CCCATCAAAG GGATAAAGAG CCCCACAAG GCCAGAGACG GGATGGTCTG GAAAATACCT	1680
GCAATCTGCA AGACCCAGTC GGCCAGCTTC TCATGATAGC GAAGAAAAAC AGCCAAGGGA	1740

271

ATCGCAAGCA AAATAGCTAG TAACAAGGTC AAAAGCGACA ACTGCAAATG TTGACATAGA	1800
GCTGTCAACC AATCACTAAA ACGATCCTGA AAAGTTGCAA TTAAATTAGT CATGAACACT	1860
ACCTCCAAAC AAGTCTGCTA CAAAGTCTGT TGCAGGCGCT TTTAAAATTG TCTCGGGATT	1920
CGCTACCTGG CGAATTTCTC CATCCTGCAA GACAGCAATA CGGTCCGCCA ACTTCAAGGC	1980
TTTCATCCGTA TCATGGGTTA CAAAAATCGT TGTCATCCCA AACTCTTTAT GCAATTCTTT	2040
TGTCAGAACC TGCAACTGTT TTCTCGAAAT AGCATCCAAG GCCGAAAAGG GTTCATCCAT	2100
GAGGAAAATC TTGGGCTGAC CAATCATAGC TCGGACAATA CCGACCCGTT GCTGTTCTCC	2160
ACCAGATAAT TCACTAGGTA AGCGATGCCC ATACTCGGCT ACTGGTAAAC CAACCTTAGC	2220
CAAAAGCTCT TCTGTTTTCT TCGTAATTC TTCTTGCTC CACCCCTTCA TTTCAGGAAT	2280
GAGAGCAATA TTTTCCGCAA CTGTTAGATT TGGAAAAAGA GCAATAGCCT GTAAACATA	2340
ACCAGTAGAA AGACGAAGTT CACGCTCATC ATAGTCTTTG ATGCGCTTCC CATCCATATA	2400
AATATTTCCA TCAGTTGGTT CAAAAGACG GTTAATCATC TTGAGCATGG TCGTCTTACC	2460
TGACCCAGAA GGCCCTACTA AAACCATAAA TTCCCCATCC TCAATCTGTA AGTTGACATC	2520
TCTCAAGACA TCCTTTTCTG TGTAGCGCAG TGCTACATTT TTGTATTCAA TCATTCTTTG	2580
TCCTCAATTT AAAACTTCCC TCGATTGGTC AAGTCTTCTA CCTTAGGCAT AACTTCCTTA	2640
TTATCCCAAT GCTCCACAAT TTTCCCGTTC TCTAAACGGA AGATATCGTA CTGGGCATAA	2700
GCAACGCCAT CAATCTGAGT CTGACCATAG CTAACCACAT AGTTTCCTTG TCCTAAGAGT	2760
TGGAAAACAA AGTCAAAAGT GACACTATAT TCAGCCACAT AGTTTTTATA AGCAGACTT	2820
CCTTGTCCTAA TATCATGATT ATGCTGAATC AAATCGTCTG CCACATAATC ACTCCACTGC	2880
TCTAGCTCCC CATTTTGGAA AATTTCTGTC AAGAAACGGC GAACCAGCTT TTTATTTTCT	2940
GCTTTCTTAT CCAAATCCTT GATTTCAAAA TCTCCAAAAA TTTGATCTAG TTGGTCATTT	3000
TCAGGTGTTT GATAGTAGTC AATGACATCC CAATGCTCAA CAATACAACC ATTCTCATCC	3060
TCACGGAAG TATCCGTCGT CACCCATTGA GCTTCTCCAC CATTCAGATA TTGATGAACA	3120
TGAACAAAGA CCAGATTGCC ATCCTCAATG GTGCGGACAA TCTTAATCTG ACGCTCTGGA	3180
TGACGCTCAA AGAAATCTGC AAAGAAGGCT GCAAATCCTT CTTTCCCGTC AGGAACACCT	3240
GTCGAATGTT GGATATAGGT ATCCCCTACA GACTGGGCTT GAGCCTCAGC AACTCGTCCG	3300
TCTTGAATGG CATGGATGTA TAGGTTGTGA GCATTTTTC AATTGTTGTGA CATATTCTAA	3360
ACCTCATTTT CCTTCTCTTT CAGATTCGCC AAAATCTTTT CTTGAAAACC TTCAAATTGG	3420
TGAATTTCTT CCTCTGAAAA TCCTTTGTAA AAGATAGTAT CCAATTTCTG ACTGACACGA	3480

272

TGCCCCACTT CTTTCTGGGA CTTGCCTAAC TCCGTTAAAA CTAAATACTT CTTACGCTTG	3540
TCTTTTCCAC ACGGACTAAC AATTACAAGC TTTTGTTCCT CTAGCTTTTT TATCATAGTC	3600
GTGAGCGTAT TATTCGCAAG TCCAGTCGCA AGCGCGATAT CTGTGCGAGT TGCGCAGCCA	3660
GTTTCACTAT TCCATAAAAC CGCTAAAATC TTGCCCTGTT CACCCCTATA AAGAGCCTCA	3720
GGATCTTGAC TCAGTAACTT TTGAAAAATC CGCCCATTC ACAAACGAAT ATGATGGGCT	3780
AGCAAATGAC CATCTTTTCAT AACACCTCCA ATTTATTTTCG ATATCGAAAT GAATAAAACA	3840
ATTGTAACAC TCATCGTTCT AACTGTCAAC TATTTTCGATT TAGAAATAAT TTTTGATAAT	3900
TATCCACACC ACCATACTCC GGCTCAACTA ACTTTTAACG AGAGTTTCTA AACTCCTTCG	3960
TCCTCCAGTC TACAAAAGCC TTCCATTTCG ACTATCCTAT ATTTTATGAG GGGACACATT	4020
TTTCCTATCA GACCATTTCAT TTAAAGATA GAAGTAAATC ATAATTGCTT CCATCTGTTC	4080
TTTTATAGTA TATTGAAGTT AGACTAGAGC ACTGTATCTT CTAAAACATT GATAGAAAGC	4140
GATTTGAATT TCCCAATCAA TTGTTCGTA TTTATAGCAT TTCGAAACTG GAATAGGACA	4200
CCATGACTGC TAAAAGATTT CTATAAATTC ATTTAATTTT CTCAATCAAT TTGTTCATAT	4260
CTTATTTTCAT TCCGCTATAA TTTCACCTTA CCCTATCTTT TTCGTAGCAC CCTTCAAACA	4320
GCCTATCCCC TACCGTTTGA CGATTCCCTCA CTTGCTCCA CTTCCATTAC AGAAGTTTCT	4380
TCACTACTAT GGGCTCGGCT GACTTCTCAT GATTCCTTGT TACTACTATT TGAACGCTCA	4440
CGAGATAGAT CTTACAAAAA ATGCTTTGAT CCACAATGGA ATCAAAGCAT TTAAAGAGT	4500
TCCTCATACA TAAGCGCAGA AGTCGCAGTT CCTCTGTACT TGGCTTCTTC TCTTTTGACA	4560
AAGCGAGCCA AGTTGAGCAA CTCAGGTGCT GGATGTTTGG GATTTAGGAG CAATTCACGA	4620
TTGACCAGGC CTGAGAGACG AACTGCCTGC AATTGCTCAT TTGTAGTAGG CAGTTTTTTA	4680
GTAGTCTCTA GGAGAGCAGC AACTAAATCT TCACTCAAAT CATGTCGAGC ATGATTGTAA	4740
AGATCTTTTA TAAGGCTTTC TAGGTTTGGT TCTACCATCC CTACCACCTC CCTTATGGTT	4800
TAATAATGTT TAATCAAATC AACCGTTGAA CGATCCAATT TCTTCACCAA GGCTTGTAAG	4860
AAAGCTTGCG CTTCTAGGAA GTCATCCATT GCATAGAGGG TTGGGTGAGA ATGGATATAA	4920
CGAGCGCAGA CACCGATAGT TGTGATGGG ACACCACCAT TTTTCAGATG AGCTGCACCT	4980
GCATCTGTTC CGCCTTTACC ACAGTAGTAT TGGTACTTGA TACCAGCTTC TTCAGCCGTT	5040
GTCAAAGGA AATCCTTCAT CCCTGGGAGA AGCAAGTGAC CTGGATCATA GAAACGAATC	5100
AAGGTTCCAT CTCCAATCTT GCCTTGACCA CCGTAGACAT CACCTGCTGG TGAGCAATCA	5160
ACTGCGAGGA AGACTTCTGG GTCAAACCTG GTGTAGAGG TATGAGCGCC ACGCAGACCA	5220
ACTTCTTCTT GGACGTTAGA ACCCAGATAG AGTTCATTGC CGAGTTTTTG ACCCGATAAA	5280

273

GCTTCAGCTA GCTCGCTTAC CATGAGGACA CCGTAGCGGT TATCCCAAGC TTTTGAGATG	5340
ATATTTT TTTT CATTGGCTGT CAAAATTGCA GAACTATCTG GTACAATGGT ATCACCAGGA	5400
CGGATGCCAA AACTTTCTGC CTCAGCCTTG TCCGCAAAAC CACCATCAAA AACGATATCG	5460
GCAATGGCTG GCATGGTTGG TCCCCCTTT CCACGAGTCA AATGCGGAGG AACAGAACCT	5520
GAAATCACAG GAATTTTCATG ACCATCACGA GTCAAGAGTT TGAAACGTTG GCTGCTAACC	5580
ACCATGGGGT TCCAGCCACC GATTTCTACG ACACGGAAGG TACCATCTGG CTTGATTTTCG	5640
CTGACCATAA AACCAACTTC GTCCATATGA GAAGCGACCA AGACGCGCGG TGCATCCACA	5700
GCTTCTGAAT GTTTGATACC AAAAATACCA CCCAAGCCAT CTGTCACCAC TTCATCCACA	5760
TGCGGTGTCA ACTTTTCACG AAGATAAGCA CGGACAGGCG CTTCATGACC TGAGACTGCA	5820
GCAAGTTCTG TTACTTCTTT AATTTTGTAA AATAATGTTG TCATTTTCAGT TCCTTCTTTC	5880
TTTCATCCAT TTTACCACTT TTTATAGGAG AAGGATAGTG GGAAGGTGGA TTTCTAAGTT	5940
AGTATCTTAG TCCTGCTCTA TCTTAGAAAA GGATAGTATT CTCTTGCATG TAGTGCAAAA	6000
TCTAGTAAAC ATTCCAAAAT TAACTCGAAT ATTTATTTCC AAACAAAAAA ACAATACACC	6060
ATCAAAGTTG TTTGGATTTT TCATGAAATT TACAGAAAAT AGTTGACTTC CCTTTCTTCT	6120
TTCTTTAAAT ATATAGTTGG TTGAGTTTGG AATAGTACGC TGTAGCTGCT AAAACATTTC	6180
TAGAAATTAA TTTGACTTTC CTAATAGAGT TGTTTCATATC TTATTTCAAT TTAATAAGT	6240
ACAAAACCTAG AAAAGGAAAA AATCATGACC AGG	6273

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28171 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

ACAACCTTTT TCAAAAATC ACCTTGGTAC GGAGATGTTT TGCTTTCTGC TATTATTTTC	60
GGTTATATTC ATATCAATTT TGCTTTAACT CCTCTTGCTT TTTTCATTTA TGCTAGTGGA	120
GGTCTTATTT TAGCTCTATT GTATCGCATG ACTAAAAATC TCTACTATCC AATACTAGTT	180
CATATTCTCA TTAATATCAC TGCCTTCTGG GATGTGTGGT TGCTCCTATT TTCAGGAAGT	240
TAGCTTACTA AAATAATGTC GGAACTTTCC GGCATTTTCT TTTTTCACAA ATAGTCAACG	300
TTTTTCTTTT CGATATTGTA GTGGTGTGTA TCCAGTTATT TTTTGAATT GATTTTGAAA	360

274

ATAAGGTTGA CTTGAGAAAG GCAGATAGTG AAGATAGTTA AGAAGAATAG GATGTTCTTT	420
TTTCCTTTTT GGAAACTTC TAAATATGG TATAATGAAA AGATAAAGAA GTTGGGGTA	480
GAAGATGAAC ATTCAACAAT TACGCTATGT TGTGGCTATT GCCAATAGTG GTACTTTTCG	540
TGAAGCTGCT GAAAGATGT ATGTTAGTCA GCCGAGTCGT TCTATTTCTG TTCGTGATTT	600
GGAAAAGAG TTGGGCTTA AGATTTTCCG TCGGACCAGC TCAGGGACTT TCTTGACCCG	660
TCGTGGGATG GAATTTTATG AAAAATCGCA AGAATTGGTT AAAGGATTTG ATATTTTCA	720
AAATCAGTAT GCCAATCCTG AAGAAGAAAA AGATGAATTT TCTGTTGCTA GCCAGCACTA	780
TGACTTCTTG CCACCAACTA TTACGGCCTT TTCAGAGCGC TATCCTGACT ATAAGAACTT	840
CCGTATTTTT GAATCAACTA CTGTTCAAAT ATTAGATGAA GTGGCGCAAG GGCATAGTGA	900
GATTGGGATT ATCTACCTCA ACAATCAAAA TAAAAAGGGG ATTATGCAAC GGGTTGAAAA	960
ATTAGGTCGT GAGGTCATCG AATTGATTCC TTCCATACC CATATTTATC TCCGTGAGGG	1020
TCATCCTTTA GCCCAGAAAG AGGAATTAGT CATGGAGGAT TTAGCGGATT TACCAACGGT	1080
TCGTTTCACT CAAGAGAAAG ACGAGTACCT TTATTATTCA GAGAACTTTG TCGATACCAG	1140
CGCTAGCTCA CAGATGTTTA ATGTGACAGA CCGTGCCACC TTGAATGGTA TTTTGGAGCG	1200
GACGGACGCC TATGCGACAG GTTCTGGATT TTAGATAGT GACAGTGTTA ATGGCATTAC	1260
AGTTATTCGT CTCAAGGATA ACCTAGATAA CCGCATGGTC TATGTTAAAC GTGAAGAAGT	1320
GGAGCTTAGT CAAGCTGGGA CTCTCTTCGT AGAAGTCATG CAAGAATATT TTGATCAAAA	1380
GAGGAAATCA TGAAAAAAG AGCAATAGTG GCAGTCATTG TACTGCTTTT GATTGGGCTG	1440
GATCAGTTGG TCAAAATCCTA TATCGTCCAG CAGATTCCAC TGGGTGAAGT GCGCTCCTGG	1500
ATCCCCAATT TCGTTAGCTT GACCTACCTG CAAAATCGAG GTGCAGCCTT TTCTATCTTA	1560
CAAGATCAGC AGCTGTTATT CGCTGTCATT ACTCTGGTTG TCGTGATAGG TGCCATTTGG	1620
TATTTACATA AACACATGGA GGAATCATTC TGGATGGTCT TGGGTTTGAC TCTAATAATC	1680
GCGGGTGGTC TTGGAACTT TATTGACAGG GTCAGTCAGG GCTTTGTTGT GGATATGTTT	1740
CACCTTGACT TTATCAACTT TGCAATTTTC AATGTGGCAG ATAGCTATCT GACGGTTGGA	1800
GTGATTATTT TATTGATTGC AATGCTAAAA GAGGAAATAA ATGGAAATTA AAATTGAAAC	1860
TGGTGGTCTG CGTTTGATA AGGCTTTGTC AGATTTGTCA GAATTATCAC GTAGTCTCGC	1920
GAATGAACAA ATTAAATCAG GCCAGGTCTT GGTCAATGGT CAAGTCAAGA AAGCTAAATA	1980
CACAGTCCAA GAGGGTGATG TCGTCACTTA CCATGTGCCA GAACCAGAGG TATTAGAGTA	2040
TGTGGCTGAG GATCTTCCGC TAGAAATAGT CTACCAAGAT GAGGATGTGG CTGTCGTTAA	2100
CAAACCTCAG GGAATGGTTG TGCACCCGAG TGCTGGTCAT ACCAGTGGAA CCCTAGTAAA	2160

275

TGCCCTCATG	TATCATATTA	AGGACTTGTC	GGGTATCAAT	GGGGTTCTGC	GTCCAGGGAT	2220
TGTTACCCGT	ATTGATAAGG	ATACGTCAGG	TCTTCTCATG	ATTGCTAAAA	ACGATGATGC	2280
GCATCTAGCA	CTTGCCCAAG	AACTCAAGGA	TAAAAAGTCT	CTCCGCAAAT	ATTGGGCGAT	2340
TGTTTCATGA	AATCTACCTA	ATGATCGTGG	TGTAATTGAA	GCGCCGATTG	GCCGGAGTGA	2400
AAAAGACCGT	AAGAAACAGG	CTGTAAGTGC	TAAAGGGAAG	CCTGCAGTGA	CGCGTTTTCA	2460
CGTCTTGGA	CGCTTTGGCG	ATTATAGCTT	AGTAGAGTTG	CAACTGGAGA	CAGGGCGCAC	2520
TCATCAAATC	CGTGTCACA	TGGCTTATAT	CGGCCATCCA	GTGCTGGTG	ATGAGGTCTA	2580
TGGTCCTCGC	AAGACTTTGA	AAGGACATGG	ACAATTTCTT	CATGCCAAGA	CTTTAGGTTT	2640
TACTCATCCG	AGAACAGGTA	AGACCTTGGA	ATTTAAAGCA	GATATCCCAG	AGATTTTTAA	2700
GGAAACCTTG	GAGAGATTGA	GAAAGTAAGA	ATGAAAAAGA	AATTAAGTAG	TTTAGCACTT	2760
GTAGGCGCTT	TTTTAGGTTT	GTCATGGTAT	GGGAATGTTC	AGGCTCAAGA	AAGTTCAGGA	2820
AATAAAATCC	ACTTTATCAA	TGTTCAAGAA	GGTGGCAGTG	ATGCGATTAT	TCTTGAAAGC	2880
AATGGACATT	TTGCCATGGT	GGATACAGGA	GAAGATTATG	ATTTCCAGGA	TGGAAGTGAT	2940
TCTCGCTATC	CATGGAGAGA	AGGAATTGAA	ACGTCTTATA	AGCATGTTCT	AACAGACCGT	3000
GTCTTTCGTC	GTTTGAAGGA	ATTGGGTGTC	CAAAAACCTG	ATTTTATTTT	GGTGACCCAT	3060
ACCCACAGTG	ATCATATTGG	AAATGTTGAT	GAATTACTGT	CTACCTATCC	AGTTGACCGA	3120
GTCTATCTTA	AGAAATATAG	TGATAGTCGT	ATTACTAATT	CTGAACGTCT	ATGGGATAAT	3180
CTGTATGGCT	ATGATAAGGT	TTTACAGACT	GCTGCAGAAA	AAGGTGTTTC	AGTTATTCAA	3240
AATATCACAC	AAGGGGATGC	TCATTTTCAG	TTTGGGGACA	TGGATATTCA	GCTCTATAAT	3300
TATGAAAATG	AAACTGATTC	ATCGGGTGAA	TTAAAGAAAA	TTTGGGATGA	CAATTCCAAT	3360
TCCTTGATTA	GCGTGGTGAA	AGTCAATGGC	AAGAAAATTT	ACCTTGGGGG	CGATTTAGAT	3420
AATGTTTCATG	GAGCAGAAGA	CAAGTATGGT	CCTCTCATTG	GAAAAGTTGA	TTTGATGAAG	3480
TTTAATCATC	ACCATGATAC	CAACAAATCA	AATACCAAGG	ATTTTCATTAA	AAATTTGAGT	3540
CCGAGTTTGA	TTGTTCAAAC	TTCGGATAGT	CTACCTTGGA	AAAATGGTGT	TGATAGTGAG	3600
TATGTTAATT	GGCTCAAAGA	ACGAGGAATT	GAGAGAATCA	ACGCAGCCAG	CAAAGACTAT	3660
GATGCAACAG	TTTTTGATAT	TCGAAAAGAC	GGTTTTGTCA	ATATTTCAAC	ATCCTACAAG	3720
CCGATTCCAA	GTTTTCAAGC	TGGTTGGCAT	AAGAGTGCAT	ATGGGAACTG	GTGGTATCAA	3780
GCGCCTGATT	CTACAGGAGA	GTATGCTGTC	GTTTGGAAATG	AAATCGAAGG	TGAATGGTAT	3840
TACTTTAACC	AAACGGGTAT	CTTGTTACAG	AATCAATGGA	AAAAATGGAA	CAATCATTTG	3900

276

TTCTATTGGA CAGACTCTGG TGCTTCTGCT AAAAATTGGA AGAAAATCGC TGGAAATCTGG	3960
TATTATTTTA ACAAAGAAAA CCAGATGGAA ATTGGTTGGA TTCAAGATAA AGAGCAGTGG	4020
TATTATTTGG ATGTTGATGG TTCTATGAAG ACAGGATGGC TTCAATATAT GGGGCAATGG	4080
TATTACTTTG CTCCATCAGG GGAAATGAAA ATGGGCTGGG TAAAAGATAA AGAAACCTGG	4140
TACTATATGG ATTCTACTGG TGTCATGAAG ACAGGTGAGA TAGAAGTTGC TGGTCAACAT	4200
TATTATCTGG AAGATTCAAG AGCTATGAAG CAAGGCTGGC ATAAAAAGGC AAATGATTGG	4260
TATTTCTACA AGACAGACGG TTCACGAGCT GTGGGTGGA TCAAGGACAA GGATAAATGG	4320
TACTTCTTGA AAGAAAATGG TCAATTACTT GTGAACGGTA AGACACCAGA AGGTTATACT	4380
GTGGATTCAA GTGGTGCTG GTTAGTGGAT GTTTCGATCG AGAAATCTGC TACAATTAAA	4440
ACTACAAGTC ATTCAGAAAT AAAAGAATCC AAAGAAGTAG TGAAAAAGGA TCTTGAAAAT	4500
AAAGAAACGA GTCAACATGA AAGTGTTACA AATTTTCAA CTAGTCAAGA TTTGACATCC	4560
TCAACTTCAC AAAGCTCTGA AACGAGTGTA AACAAATCGG AATCAGAACA GTAGTAGAAA	4620
AGAAGGTTTT AGGGCCTTCT TTTTCCTATC AACTCTTTTC TATTTCTGT TATTCATGTT	4680
ATAATGGATA AATATGAATA ATCGGAGTGA GACTATGAAA TACAAACGGA TTGTCTTTAA	4740
GGTGGGTACT TCTTCTCTGA CAAATGAGGA TGGAAGTTA TCACGTAGTA AGGTAAAGGA	4800
TATTACCCAG CAGTTGGCTA TGCTGCACGA GGCTGGTCAT GAGTTGATTT TGGTGTCTTC	4860
AGGTGCCATT GCGGCTGGTT TTGGAGCCTT AGGATTTAAA AAGCGTCCGA CTAAGATTGC	4920
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TCTTCTCTTG CGTCAAATCG TTTCTGCACA AATCTTGCTG ACCCAAGATG ACTTTGTGGA	5040
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TCCTATCATC AATGAGAATG ATAGTGTCGT TATTGATGAG CTCAAGGTTG GGGACAATGA	5160
CACTCTAAGT GCTCAAGTAG CGGCGATGGT CCAAGCAGAC CTTTTAGTTT TCTTGACAGA	5220
TGTGGACGGT CTCTATACTG GAAATCCTAA TTCAGATCCA AGAGCCAAAC GCTTGAGAG	5280
AATCGAGACC ATCAATCGTG AGATTATTGA TATGGCTGGT GGAGCTGGTT CGTCAAACGG	5340
AACTGGGGT ATGTTAACCA AAATCAAGGC TGCAACTATC GCGACGGAAT CAGGAGTTCC	5400
TGTTTATATC TGCTCATCCT TGAAATCAGA TTCCATGATT GAGGCGGCAG AGGAGACCGA	5460
GGATGGTTCT TACTTTGTTG CTCAAGAGAA GGGGCTTCGT ACCCAGAAAC AATGGCTTGC	5520
CTTCTATGCT CAGAGTCAAG GTTCTATTTG GGTGATAAA GGGGCTGCGG AAGCTCTCTC	5580
TCAATATGGA AAGAGTCTTC TCTTATCTGG TATCGTTGAA GCAGAAGGAG TCTTTTCTTA	5640
CGGTGATATC GTGACAGTAT TTGACAAGGA AAGTGAAAA TCACTTGGA AAGGACGCGT	5700

277

GCAATTTGGA GCATCTGCTT TGGAGGATAT GTTGC GTTCT CAAAAAGCCA AGGGTGTCTT	5760
GATTTACCGT GACGACTGGA TTTCCATTAC TCCTGAAATC CAACTACTTT TTACAGAATT	5820
TTAGAGGTAA ACTATGGTGA GTAGACAAGA ACAATTTGAA CAGGTACAGG CTGTTAAAAA	5880
ATCGATTAAAC ACAGCTAGTG AAGAAGTGAA AAACCAAGCC TTGCTAGCCA TGGCTGATCA	5940
CTTAGTGGCT GCTACTGAGG AAATTTTAGC GGCTAATGCC CTCGATATGG CAGCGGCTAA	6000
GGGGAAAATC TCAGATGTGA TGTGGATCG TCTTTATTG GATGCAGATC GTATAGAAGC	6060
GATGGCAAGA GGAATTCGTG AAGTGGTTGC CTTACCAGAT CCAATCGGTG AAGTTT TAGA	6120
AACAAGTCAG CTTGAAAATG GTTTGGTTAT CACAAAAAAA CGTGTAGCTA TGGGTGTCAT	6180
CGGTATTATC TATGAAAGCC GTCCAAATGT GACGCTGAT GCGGCTGCTT TGACTCTTAA	6240
GAGTGAAAT GCGGTGTTC TTCGTAGTGG TAAGGATGCC TATCAAACAA CCCATGCCAT	6300
TGTCACAGCC TTGAAGAAGG GCTTGGAGAC GACTACTATT CATCCAAATG TGATTCAACT	6360
GGTGGAGGAT ACTAGCCGTG AAAGTAGTTA TGCTATGATG AAGGCCAAGG GCTATCTAGA	6420
CCTTCTCATT CCTCGTGGAG GAGCTGGCTT GATCAATGCA GTGGTTGAGA ATGCGATTGT	6480
ACCTGTTATC GAGACAGGGA CTGGGATTGT CCATGTCTAT GTGGATAAGG ATGCAGACGA	6540
AGACAAGCGC CTGTCTATCA TCAACAATGC TAAACCAGT CGTCCTTCTG TTTGTAATGC	6600
CATGGAGGTT CTGTGGTTC ATGAAAACAA GGCAGCAAGC TTCCTTCCTC GCTTGGAGCA	6660
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CAAAGCAAGC CAGTTTGT TT CAGGTCAAGC AGCTGAGACC CAAGACTTTG ACACCGAGTT	6780
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CTTGGCAAAA TCTGTCTTGC AGACTAGGAC GTCAGATGAG ATTCTCCTTG CCAATCGTAG	7200
TCAAGCTAAG GTAGATGCTT TCATTGCAGA CTTTGGTGGT CAGGCTTCCA GCAATGAAGA	7260
AATGTTTGCA GAAGCAGATG TGATTTTCT AGGAGTTAAG CCTGCTCAGT TTTCTGAACT	7320
GCTTCTCAA TACCAGACCA TCCTTGAAAA AAGAGAAAGT CTTCTTTTGA TTTCGATGGC	7380
AGCTGGATTG ACCTTAGAAA AACTAGCAAG TCTTATCCCA AGTCAACACC GAATTATTCTG	7440

278

TATGATGCCT AATACCCCTG CTTCTATCGG GCAAGGAGTG ATTAGTTATG CCTTGTCTCC	7500
TAATTGCAGG GCTGAGGACA GTGAGCTCTT TTATCAGCTT TTAGCCAAGG CTGGTCTCTT	7560
GGTTGAACTA GGAGAAAGTT TAATCGATGC AGCGACAGGT CTTGCAGGTT GTGGACCAGC	7620
CTTTGTCTAT CTTTTTATCG AGGCCTTGGC AGATGCAGGT GTTCAGACAG GATTACCACG	7680
AGAAATAGCA TTGAAAATGG CAGCACAAAC TGTGGTAGGA GCTGGGCAAT TGGTCCTTGA	7740
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CGCTGGTGTA GCAAGCCTAG AAGCGCATGC TTTCCGAGGA ACAGTCATGG ATGCAGTTCA	7860
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GCAAGTTGGT CATCATGGAT CGTTTTATCG ATAGTTCTGT TGCCTATCAG GGATTTGGTC	8340
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ACTTGTTAAG AAAAAAGCGA CTCTTTTAGC TAAGTTTAGT CAATCGCGAG CTGAAGCAGA	9240

279

AAAGTTGGCT	AATCAGGCAA	GTTTTTGGAC	CTTGGTCGAT	GAAAGTGAAC	GCCTGCTGAC	9300
TTGGTTAGTA	GCTAAGAAAA	AAGAAAGTTA	TCTACAGGTT	GCCAAATTAG	CCAACTTGGC	9360
AGATGATAAG	GAAAAACAGG	ATCAGGTTTT	ACGGATTCTT	GAAGTTCTCT	GTGGGCAGGA	9420
CCTCTTGCAG	GTAAGAGTAA	GAGTGATTCT	ACAAGATTTA	CTAGAAGCTA	GAAAAATGTG	9480
GCAAGCTAAT	GTCAGCTTTC	AAAATGCCAT	GGAATATCTG	GTCTTGAAAG	AAATATAAAC	9540
TCAAAAATGA	ATGATAAAGA	AAGGAAAGGG	CTGTTTTATG	GACAAAAAAG	AATTATTTGA	9600
CGCGCTGGAT	GATTTTTCCT	ACAATTTATT	GGTAACCTTA	GCCGATGTGG	AAGCCATCAA	9660
GAAAAATCTC	AAGAGCCTGG	TAGAGGAAAA	TACAGCTCTT	CGCTTGGAAG	ATAGTAAGTT	9720
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TCGAGAGCAG	GACGAGGAAT	GTATGTTTTG	TGACGAGTTG	CTATACAGGG	AGTAGGCATG	9900
CAGATTCAAA	AAAGTTTTAA	GGGGCAGTCT	CCCTATGGCA	AGCTGTATCT	AGTGGCAACG	9960
CCGATTGGCA	ATCTAGATGA	TATGACTTTT	CGTGCTATCC	AGACCTTGAA	AGAAGTGGAC	10020
TGGATTGCTG	CTGAGGATAC	GCGCAATACA	GGGCTTTTGC	TCAAGCATTT	TGACATTTCC	10080
ACCAAGCAGA	TCAGTTTTCA	TGAGCACAAT	GCCAAGGAAA	AAATTCCTGA	TTTGATTGGT	10140
TTCTTGAAAG	CAGGGCAAAG	TATTGCTCAG	GTCTCTGATG	CCGGTTTGCC	TAGCATTTCA	10200
GACCCTGGTC	ATGATTTAGT	TAAGGCAGCT	ATTGAGGAAG	AAATGTCAGT	TGTGACAGTT	10260
CCAGGTGCCT	CTGCAGGAAT	TTCTGCCTTG	ATTGCCAGTG	GTTTAGCGCC	ACAGCCACAT	10320
ATCTTTTACG	GTTTTTTTACC	GAGAAAATCA	GGTCAGCAGA	AGCAATTTTT	TGGCTTGAAA	10380
AAAGATTATC	CTGAAACACA	GATTTTTTAT	GAATCACCTC	ATCGTGTAGC	AGACACGTTG	10440
GAAAAATATG	TAGAAGTCTA	CGGTGACCGC	TCCGTTGTCT	TGGTCAGGGA	ATTGACCAAA	10500
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GACGAGGAAG	ACTTGTTTCG	AGAAATTCAA	ACCCGCATCC	AGCAAGGTGT	GAAGAAAAAC	10680
CAAGCTATCA	AGGAAGTCGC	TAAGATTTAC	CAGTGGAATA	AAAGTCAGCT	CTACGCTGCC	10740
TACCACGACT	GGGAAGAAAA	ACAATAAAGG	GAGACAGGAT	GTAATAATTC	TGTCTGTTTC	10800
TGTTTAACTT	AATTAGTGAT	GATAATATAA	AGATGTATCA	CTTGGTATAG	AAGCTTTGGT	10860
ATTAAAGTTT	TTATTAAGCC	CATACGGAAT	ACCGATGGTT	GGAGCAGCAG	TTATAGCGTT	10920
CTTAGAAGGT	ATAAATAGAA	AAATAAGGTC	ATTTTAAATC	AAAGGATTGA	TAAATCAGAA	10980

280

AGAAGGTGAT	TTTTTGCGAA	CATACGAAAA	TAAAGAAGAA	CTAAAAGCTG	AGATAGAGAA	11040
AACATTGAG	AAATATATTT	TAGAATTGGA	TAATATTCCA	GAAAAATTAA	AAGATAAGAG	11100
AGCTGATGAA	GTTGACAGAA	CTCCAGCAGA	AAACCTTGCT	TATCAGGTTG	GTTGGACCAA	11160
CTTGTTCTT	AAATGGGAAG	AAGATGAAAG	AAAGGGGCTT	CAAGTAAAAA	CACCATCGGA	11220
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AGGAATGTCA	TTTAAGAATA	ACTGGATAGA	CAAGGAAGGC	AGAGTATTTA	TCTATTTTAC	11820
TGTCGAAGAA	ATTATGAAAA	GAAGAAATAT	CTCAAAGCCA	ACTGCCATAA	AAACATTAGA	11880
TGAGCTTGAT	GTAAGAAAGG	AATAGGACTG	ATCGAAAGAG	TAAGGCTTGG	ACTTGGTAAG	11940
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CAGAAGTCAA	AAAACTTAAC	TTCAGAAGTA	AAAGATTTTA	ACCTCAGAAG	TAAAGAAAAT	12060
GAACCTCAAG	AGGTTAAGAA	CCTTGACTCT	AACTATATAG	AGAATAATAA	GAGTAAGTAT	12120
AGTAAGAGAG	AATATAGTTT	TGGTGAAAAC	GGACTTGGAA	CATTTCAAAA	TGTGTTTTTA	12180
GCTGCTGAAG	ATATATCGGA	TTTACAAATC	ATAATGAACT	CACAGCTTGA	GAATTACATT	12240
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ATATATCTTC	ATGAGCCCTT	GATAACCACT	GTCAGACAAG	ATTTTACCAG	CTTGTCGGAT	12540
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281

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282

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GTCCAGCGGT	GGAAGCGGGA	GAGAGTCTTG	GATTTCTTCC	GGGTGATCTT	AAGGAGAAGG	18000
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284

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CGGTGTAGCT	ACGGTAAATG	CCATCATCAC	TTGGGTGGAG	GATACACTTC	GTGCGTCAGG	18780
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ACCTTCCAAA	TCATGTCAGT	CCCTTATCGT	AACCGCAGAA	AACGTTTCGA	GTTACGGGCG	19260
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285

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286

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287

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AAGACGCACT	TTCCAGACCC	TATGGGCAAT	TACATGACAG	GACTCTTGCT	GGGACATCTG	23820
GACACCGACT	TTGAGGAGAT	GAATGAGCTT	TATTCCAGTC	TAGGAATTAT	CCACCTCTTT	23880
GCCCTATCTG	GCATGCAGGT	AGGTTTTTTC	ATGAATGGAT	TTAAGAAACT	TCTCTTGCGA	23940
TTGGGCTTGA	CCCAAGAAAA	GTTGAAATGG	CTGACTTATC	CCTTTTCCCT	TATCTATGCG	24000
GGACTAACTG	GATTTTCAGC	ATCGGTTATT	CGCAGTCTCT	TGCAAAAGCT	ACTGGCTCAA	24060
CATGGGGTTA	AGGGCTTGGA	TAATTTTGCC	TTGACGGTGC	TTGTCCTCTT	TATTGTCATG	24120
CCAAACTTTT	TCTTGACAGC	AGGAGGAGTC	TTGTCCTGCG	CTTATGCTTT	TATCCTGACC	24180
ATGACCAGCA	AAGAAGGGGA	GGGGCTCAAG	GCTGTTACTA	GTGAAAGTCT	AGTCATCTCC	24240
TTGGGCATAT	TGCCCATTCT	ATCCTTCTAT	TTTGCGGAAT	TTCAACCTTG	GTCTATCCTT	24300
TTGACCTTTG	TCTTTTCCTT	TCTTTTGTAC	TTGGTCTTCT	TACCGCTCTT	GTCTATCTTA	24360
TTTGTCTTTT	CCTTTCTCTA	TCCAGTCATT	CAGCTGAACT	TTATCTTTGA	ATGGTTAGAG	24420
GGCATTATTC	GCTTGGTCTC	GCAGGTGGCA	AGGAGACCAC	TTGTCTTTGG	TCAACCCAAC	24480
GCATGGCTTT	TAATCTTATT	GTTAATTTCC	TTGGCTTTGG	TCTATGATTT	GAGGAAAAAC	24540
ATTAAAGGAT	TAACAGTATT	GAGTTTATTG	ATTACAGGTC	TCTTTTTCCT	TACCAAGTAT	24600
CCACTGGAAA	ATGAAATCAC	CATGCTGGAT	GTGGGGCAAG	GAGAAAGTAT	TTTCTACGGG	24660
ATGTAAGTGG	GAAAACCATT	CTCATAGATG	TAGGTGGTAA	GGCAGAATCT	TATAAGAAAA	24720
TCAAAAAATG	GCAAGAAAAG	ATGACGACCA	GCAATGCCCA	GCGAACCTTG	ATTCCCTATC	24780
TCAAAAGTCG	AGGAGTAGCT	AAGATTGACC	AGCTAATTTT	GACTAACACG	GACAAGGAGC	24840
ATGTTGGAGA	TTTGTGAGAG	ATGACCAAGG	CTTTCCATGT	AGGGGAGATT	CTAGTATCAA	24900
AAGACAGTCT	GAAACAGAAG	GAATTTGTGG	CAGAACTACA	GGCGACTCAA	ACAAAGGTGC	24960
GTAGTATGAT	AGTAGGGGAG	AACTTGCCCA	TTTTTGGGAAG	TCAGTTAGAA	GTTCTATCTC	25020
CAAGGAAAAT	GGGAGATGGA	GGACACGATG	ATACCCTAGT	TCTGTATGGG	AAATTCCTTG	25080
ATAAGCAATT	TCTCTTCACG	GGAAATTTGG	AGGAGAAAGG	AGAGAAGGAC	TTGCTGAAGC	25140

288

ACTATCCAGA	CTTGAAAGTA	AATGTTTTGA	AAGCTAGCCA	ACATGGCAAT	AAAAAATCAT	25200
CAAGTCCAGC	CTTCTAGAA	AAACTCAAAC	CAGAGCTTAC	TCTTATCTCA	GTTGGAAAGA	25260
GCAATCGAAT	GAAACTCCCC	CATCAGGAAA	CATTGACACG	ACTGGAAGGT	ATCAATAGCA	25320
AAGTTTATCG	AACTGACCAG	CAAGGAGCTA	TACGTTTTAA	GGGGTTGGAT	AGTTGGAAAA	25380
TCGAAAGTGT	TCGATAGGAA	GGATAAATGT	TGTAGATTAG	TGAAATAAAC	TAAAAATTTG	25440
TTGCATAATA	ATGATAAAAA	TGGTATAATG	AAAACGTATT	CAATATTGAG	GATATAAAAT	25500
CATTAAAAAT	CAGCAAAAGT	TGTTTTATTA	GTTAGTTTAT	AATCTATTGG	TCTTCTTCAG	25560
TCCAGTGTAT	CTGCTGTGAC	AGTCACTAAA	AGTTACAAGT	ATGATTGGAA	TACGGTTTGG	25620
GAATATAGTA	CCAACTATCA	CGACCATCAG	TATGCTTGGA	TTCCGTCATG	GTCTCGTTAT	25680
GACAGCTATT	CTGAGTATAA	AGTTGGCGGA	GGCTGGAAC	ACGCTCGTTA	TGAGGTCATA	25740
AACTATTACA	GCGGAGGCTA	TTAATTCTTA	AAGAGTGAGA	AAAAGGAGGG	CTAGATATGT	25800
TGCAGCTTAC	TCATGTGACC	TTAAAAACGC	GACAAAGTCAT	CTTGCAAGAT	GTGGATTTCA	25860
CCTTTAAAAA	GGGTAGGGTT	TATGGTCTTC	TTGCTATCAA	TGGCTCTGGA	AAGACGACCC	25920
TGTTCCGTGC	CATTAGCAAT	TTAATTCCCA	TAAGTAGTGG	AAATATCGCA	GCCCCCTCCT	25980
CTTTATTTTA	TTATGAGAGT	ATTGAATGGC	TGGATGGAAA	CTTAAGTGGG	ATGGACTACC	26040
TTCGTCTTAT	CAAAAACATC	TGGAAGTCAG	GTCTGAACTT	GAGGGATGAA	ATCGCCTATT	26100
GGGAAATGTC	TGACTATATC	AGTCTTCCCA	TTTCGCAAGTA	TTCTTAGGC	ATGAAGCAAC	26160
GCTTGGTGAT	TGCCATGTAT	TTCTCAGTC	AGGCCAAATG	CTGGCTCATG	GATGAGATTA	26220
CAAATGGCTT	AGATGAGTAT	TATCGACAGA	AGTTTTTTGA	TAGGCTAGCA	CAAATCGATA	26280
GACAAGAACA	GCTGGTTCTT	TTAAGTTCCC	ACTATAAGGA	AGAGTTGGTT	GATGTCGCG	26340
ATAGAGTAGT	AACCATTCAT	CAGGGGCAGA	TAGAAGAGGT	TTAGTTTATG	AAAGATGTTA	26400
GTCTATTTTT	ATTGAAAAAA	GTTTTCAAAA	GCCGCTTAAA	CTGGATTGTC	TTAGCTTTAT	26460
TTGTATCTGT	ACTCGGTGTT	ACCTTTTATT	TAAATAGTCA	GACTGCAAAC	TCACACAGCT	26520
TGGAGAGCAG	GTTGGAAAGT	CGCATTGCAG	CCAACGAGAG	GGCTATCAAT	GAAAAATGAAG	26580
AGAAACTCTC	CCAAATGTCT	GATACCAGCT	CGGAGGAATA	CCAGTTTGCT	AAAAATAATT	26640
TAGACGTGCA	AAAAAATCTT	TTGACGCGAA	AGACAGAAAT	TCTGACTTTA	TTAAAAGAAG	26700
GGCGCTGGAA	AGAAGCCTAC	TATTTGCAGT	GGCAAGATGA	AGAGAAGAAT	TATGAATTTG	26760
TATCAAATGA	CCCAGCTGCT	AGCCCTGGCT	TAAAAATGGG	GGTTGACCGC	GAACGGAAGA	26820
TTTACCAAGC	CCTGTATCCC	TTGAACATAA	AAGCACATAC	TTTGGAGTTT	CCGACCCACG	26880
GGATTGATCA	GATTGTCTGG	ATTTTAGAGG	TTATCATCCC	AAGTTTGTTT	GTGGTTGCTA	26940

289

TTATTTTAT GCTAACACAA CTATTTGCAG AAAGATATCA AAATCATCTG GACACAGCTC	27000
ACTTATATCC TGTTTCAAAA GTGACATTTG CAATATCCTC TCTTGGAGTT GGAGTGGGAT	27060
ATGTAAGTGT GCTGTTTATC GGAATCTGTG GCTTTTCTTT TCTAGTGGGA AGTCTGATAA	27120
GTGGTTTTGG ACAGTTAGAT TATCCCTACC CAATTATAG CTTAGTGAAT CAAGAAGTAA	27180
CTATTGGGAA AATACAAGAT GTATTATTTC CTGGCTTGCT CTTAGCTTTC TTAGCCTTTA	27240
TCGTCATTGT GGAAGTTGTG TACTTGATTG CTTACTTTTT CAAGCAAAA ATGCCTGTCC	27300
TCTTCTTTC ACTCATTGGG ATTGTTGGCT TATTGTTTGG TATCCAAACC ATTCAGCCTC	27360
TTCAAAGGAT TGCACATCTG ATTCCTTTA CTTACTTGCG TTCAGTGGAG ATTTTATCTG	27420
GAAGATTACC TAAGCAGATT GATAATGTCG ATCTAAATTG GAGCATGGGA ATGGTCTTAC	27480
TTCTTGCCT GATTATCTTT TTGCTATTGG GAATTCTATT TATTGAAAGA TGGGGAAGTT	27540
CACAGAAAA AGAATTTTTT AATAGATTCT AGCTTTCCTA TAGGTAGGGA AAATAAGTAA	27600
AAACTAACAT AGAGAGGGAA TCAACTTGAT TCTCTCTTTT TGATTCGAAA ACCAAACCAA	27660
AATACAAACA CAACTTTTC AAAAAATAAC TTTTATCTT GACAAGAGCT AGAAAACTTG	27720
GTATCATATA AAAGTTGAGA AAAGCAGAAG TGAGAGCTTC TCGCCTGTG ACATTAAGTT	27780
GCCTGGCCCT ACGGATGAAA AGTTTCGAAG AAACGCTATC ATAACGTGCG GGCTTGTATA	27840
TTTACAAGTC CGCTATTGTT TTTCTCTAAT AAAACAAAAG AGGTGAAAAC CATAGCAAAG	27900
CAAGACTTAT TCATCAATGA TGAGATTGCT GTACGTGAAG TTCGCTTGAT TGGTCTTGAA	27960
GGAGAACAGC TAGGTATCAA GCCACTCAGT GAAGCGCAAG CTTTGGCTGA TAACGCTAAT	28020
GTGACCTAG TATTGATTCA ACCCCAAGCC AAACCGCCTG TTGCAAAAAT TATGGACTAC	28080
GGTAAGTTCA AATTTGAGTA CCAGAAGAAG CAAAAAGAAC AACGTAAAA ACAAGCGTT	28140
GTTACTGTGA AAGAAGTTCG TCTAAGTCCG G	28171

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7147 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

CCGCTCAACT TTTGCAATCA AGGCTAAGTA GACAGCAGCA AATTTTCATAT TGTATAATTT	60
CTGACTCATA CTTCTCTCTT TCTATGTGTA CTAGTATAAA TAAGAAAAAG AAGGCCGTCA	120

290

AGCCTTCTTT TGATTTATTC TTCTGCTTCA TCTTCTGTAA ATTGACTATT GTACAAGTCA	180
GCGTAGAAGC CACCTTGCGC CATCAGTTCC TCATAGTTGC CTTGCTCGAT GATATTTCCA	240
TCTTTCATGA CCAAGATCAA GTCTGCATTT CGGATGGTTG ACAAGCGGTG GGCAATGACA	300
AAGGATGTGC GTCCTTCCAT CAAACGGTCC ATGGCTTTT GGATCAATTC CTCTGTCCGT	360
GTGTCAACAG AAGAAGTCGC CTCATCCAAA ATCAAAAGCG GTGCATCCTT AAGAAGGGCA	420
CGAGCAATAG TCAATAGTTG TTTTGTCTT ACAGACAAGG TCACGGTGTC ATCCAAGATG	480
GTATCATAGC CATCTGGCAA GGTCAATAA AAGTGGTGAA TTTCCACAGC CTTACTAGCT	540
TCCATCATTC GTTCATCACT AATCCCTATT TGATTATAGA TGAGATTGTC TCGAATAGTT	600
CCTTCAAAGA GCCAGGTATC CTGCAAGACC ATTGAAAAGG CATCATGCAC TTCTGAACGC	660
GTATAGCCT TGGTATCCAC ACCATCAATG CGAATACTTC CCTTATCAAT CTCATAGAAT	720
TTTATCAAAA GATTGACAAT GGTGTCTTA CCAGCCCCAG TCGGCCAAC AATGGCAACC	780
TTTTGACCAG CATGAGCTGT CGCAGAGAAG TCATAGTCTT GAACATTGAC ACCGTCCACC	840
AGAATTTCTC CTGCTGACAC GTCGTAGAAA CGTGGAATCA GATTGACCAG AGTTGATTTA	900
CCAGAACCTG TTGACCCAAT AAAGGCCACT GTTTGACCAG TTTCTGCTTT AAAGCTAACA	960
TGTTCAATAA CTGCCTCCGA ATTTGCCGCA TAGCGgAAGG TCACATCCTT AAACCTGACC	1020
TGACCTTTGA AGTTTTATC AGTCAGCTGC ACTTGAACAG GGTTTTGGAT AGAAGAATGC	1080
AAATCTAAAA CTTGATTAAT CCGCTTAGCA GAGACCATAG TTCGGGGAAG AACGATGAAG	1140
AGTGCTCCCA TGAGAAGGAA GCCCATGACA ACCTACATGG CATAAGACAT GAAAAAATC	1200
ATGTCACTAA AGAGAGGCAG ACGCGCTATC GGAGCAGCGT CGTTAATCAC ATAGGCCCCA	1260
ATCCAGTAAA TCGCCACACT CAAACCACTT GAAATCCCA TCATGATAGG ATTCAAAATA	1320
GCCATAAGAC GGTGACAAA CAAATTCAAA CGGGTCAATT CATCATTTAC TGCTGCAAAAT	1380
TTTTCATTTT GATAATCCTC TGCAATTGTAG GCACGAACGA CACGAATACC TGTAAACTC	1440
TCACGAGTGA TACTGTTTCTG TTTATCTGTC AGCCCCTGAA TCAAGGACTG TTTTGAAAAG	1500
GCTAGCGTCA TCAAAACGGT CGTCATCAGG ACGTTGATAA TCACTGCCAC AAGTACGGCC	1560
CAGAGCCAGT ATTCTGAATG ACCTAAAATC TTCCCAATAG CCCAGATAGC CATAATTGAA	1620
CCACGCGTTA CCACTTGCAA GCCCATAGTA ATCAACATTT GAACTTGAGT AATGTCATTG	1680
GTAGTACGCG TCAAGAGGCT AGGAATTGAA AATTTCTTAA TCTCTGTCTG CGAGTAATCC	1740
AAAACCTCGT TAAAAATATC ACTTCTCAGC CTAAGTAGTAT AAGAAGCCGC CACTCGGGAT	1800
GCAAAAAATC CAACTGCAAC TACGGACAAG AAGGCAAGAA AGGACATTCC CATCATCATG	1860
CTTGCCGACT GCCACAATC ATCTAAATTA GTTTCTTGAC TACCTAGCAA ATCCGTAATT	1920

291

TTTCGAGATAT	AGGTCGGCAC	TTCCAACCTCT	AGATAGACCG	AAAAGCAAGT	AAAGAGAATG	1980
GCTAGTAAAA	TCATCCCCCA	TTCTTTTCTA	CTAATTCTTT	TGGCTAATTT	CTTTATTCTC	2040
TCCTCCTATT	CCCTTGATAT	TTTGCCTGTA	GTTGACCGAG	AACCTTCTCA	AAAATCAGTA	2100
ATTTCATCTC	ATCAATGTCT	TCCATCAACT	GCTTGTCTAT	GCGTTCAAAA	AAAGCCTTAA	2160
CCTGTTGCAT	CTGAGAACGT	GCTTTGTCCG	TCAGACGAAC	AAACTTAGCC	CGCTTATCAA	2220
CAGGACTCGC	CTCCAATTCC	ACCAAACCAT	TTTGCCTAT	ACGCTTAACC	AGATTACTAG	2280
CAACAGGCTT	GGTAATATG	AGTTCCTGCT	CGATATCTTT	AATCAAGACC	AAGTCTTGGT	2340
TTTTCTCGCG	ATTATCCAAA	AAACGCACAA	CCTGACCTTG	CGGCCACCC	ATAAATTCAA	2400
TGCCGCAACG	TTTGGCTTCC	TTTTGCACCA	TCAGGTGAAT	TTGATGACCA	AAACGCTTAA	2460
AGACTAACAT	CGGTTTATCC	ATAATCTCCC	CCTTCTAAAT	AAAAATAGTT	CTCTGGAGAA	2520
TAATTAAATT	TCTATGAGAA	CTATTTTCTT	GATTAAAAAA	ATCCCAAGTG	ATTTTCTCAC	2580
TTAGGATCAT	GTTCTATAGG	TTAAATTAAA	ACCCATCTAC	GTTTCGTATA	ATCTTTTGGG	2640
CGTCTTCGTC	GTCTTCAAGA	ACGCTGTAAA	GTTTTTCAAA	GGTTTCAAGG	TCTTCGCCTG	2700
ACAATTCAC	TTCTGACTGA	GGAATCATTT	CCAATTTCAGT	CACTTGGAAT	TCTTCAATAC	2760
CAGACTCACG	GAGGGCAACG	ATAGCCTTGT	GAAGGTCAGT	TGGCGCTGTG	TAAACTGTGA	2820
TTGTACCTTC	TTGTGCTTCT	ACGTCATCCA	CATCCACATC	CGCTTCGAGC	AATTGCTCAA	2880
AGACTGCGTC	CGCATCTTCA	CCTCCAAATA	CAATAACACC	TTTGTGTGCA	AAGAGGTAAG	2940
AAACAGAACC	TGAAGCGCCC	ATGTTTCCGC	CGTTTTTACC	AAAGGCTGCA	CGGACATTGG	3000
CTGCTGTACG	GTTGACGTTA	GAAGTCAAAG	TATCCACAAT	TAGCATAGAG	CCATTGGGCC	3060
CAAAACCTTC	GTAACGTCCT	TCTGTAAAGG	TTTCGTCTGT	GTTTCCTTTG	GCTTTATCAA	3120
TCGCTTTATC	GATAATGTGT	TTTGGCACTT	GGGCTTGTTT	AGCACGGTCG	ATAACGAATT	3180
TCAAAGCTGA	GTTTGATTCT	GGATCTGGAT	CACCTTTTTT	AGCTGCTACA	TAGATTTCTA	3240
CACCAAATTT	TGCATATACT	TTAGAGTTAG	CTCCATCTTT	AGCCGTTTTT	TTGGCTACGA	3300
TATTGGCCCA	TTTACGTCCC	ATTAGGAATC	TCCTTTTTTC	ACATTTTAAT	CTTCTTATT	3360
ATAACACAAG	TTTTTTTGAT	TTTCACTAGA	GGAAATGGAT	TTTATTAGCA	AATCAAGCTA	3420
GGATAGCACT	TTACCTGCTA	AGATGGTCTT	GCCTTTCTAT	CTTTATCAAC	AGGCACTCAT	3480
CCACATTCAA	AAAACAAACT	AGACCATTAT	CTGCAAATAG	AAAGTTTCAG	CCAAGTTTGA	3540
CAAAGTCAGC	TCAAATTACT	GTTTGAAGTT	TGTAGATATA	AGCGACAAAA	ACAATCATAC	3600
TGCACCTTTT	GTTGACAGTC	TACTCCAGAC	ATATCATAGT	TCAAGTAAAT	ACTTTGAAAT	3660

292

TCAACAGTTC	TTATAGGCGC	TATTGTATTC	TAAGAAATCA	ATAGAAGAGT	TTCTAAGCAA	3720
ACCTCTAATA	CTCAATAAAA	ATCAAAGAGC	AAACTAGAAA	GCTAGCCTCA	GGTTGCTCAA	3780
AACACTGTTT	TGAGGTTGCG	GATGGGGCTG	ACATGGTTTG	AAGAGATTTT	CGAAGAGTAT	3840
AATTTACGTG	TTCCCAAGAT	GGAGAAGTTA	GACTAGTACA	CTGGCACTTC	TAAAACATTG	3900
CTAGCAATTG	ATTTGTTCAT	ATTTAATTTT	ATTTTTTCCA	TAAATGGGTA	TTAGATATAA	3960
ACAGCAAAAT	ATTTCCGATA	CGTGTCTGTC	TTGAATTTCC	AATCATCTAA	AACAAGTAAA	4020
GGATAATCAA	TCCCCTGTAT	ATCAAGGAAT	TGGCTACCCT	TTTTACTTTT	TTACACATTC	4080
TGTTTGATAG	ATTCATTTTA	ACATCACGAG	CATACTCCAA	TGGAAATCGC	TAGGCAAGAG	4140
ATAAACTTTC	AGATATCCGC	AGAGAGATCA	TCGCCTCTTT	TTGTGCGAAG	CATTCTCCTC	4200
TCCTAGTCAT	TTTCTACCTT	ATCTTCTACC	TGAGGATAGA	GAGTTGTTCC	CCAAATAGAA	4260
ATCGTCCGCT	TACGCACTAG	TGGCAAATCG	GTTTTTTTCAT	AAACCGTACG	CCACCATTCC	4320
CAGGCAAGCC	CGGTACACTC	TCTAATTTTG	ACAGAGAGAT	TACGAACATT	CCCTTTTAAA	4380
GGAATACTAG	TGGTAAAGTG	AGCCGTAAAA	TCCTGCCCAT	TTCTGTCCCA	AGCCTTAGGA	4440
GTCAAGACTT	CCTTACCTTG	ATGATCATAG	GATAATTCAT	TCCAAGTAAT	ATAATATTGG	4500
GCAACATAGG	CACCACTATG	ATCCAGCAGT	AAATCTCCGT	TTCTGTAAGC	TGTAACCTTA	4560
GTCTCAACAT	AGTCTGTACT	ATTTTGAAAG	GTCGCAACTA	CATTGTCACG	TAAAAAAGAA	4620
GTTGTATAGG	AAATCGGCAA	GCCTGGATGA	TCTGCTGTAA	AGCGACTGCC	TTCTTGAATC	4680
AAGTCCTCTA	CCATATCCAC	CTTGCCTGTT	ACAACTCGGG	CACCCGAAC	TGGGTCGCCC	4740
CCTAAAAATA	CCGCCCTCAC	TTCTGTATTG	TCCAAAATCT	GTTTCCACTC	TGTCTGAGGA	4800
GCTACCTTGA	CTCCTTTTAT	CAAAGCTTCA	AAAGCAGCCT	CTACTTCATC	ACTCTTACTC	4860
GTGGTTTCCA	ACTTGAGATA	GACTTGGCGC	CCATAAGCAA	CACTCGAAAT	ATAGACCAAA	4920
GGACGCTCTG	CAGAAATTCC	TCTCTGTTTT	AAATCCTCTA	CCGTTACAGT	ATCTTGAAAC	4980
ACATCTCCTG	GATTTTTAAC	AGCATCTACG	CTGACTGTAT	AATAAATCTG	CTTAAAATTA	5040
ACAATCTGAA	TCTGCTTTTC	GCCTGAATGG	ACAGAGTTAA	AATCAATATC	AAGAGAATTC	5100
CCTGTCTTTT	CAAAGTCAGA	ACCAAACCTG	ACCTTGAGTT	GTTCCATGCT	GTGAGCCGTG	5160
ATTTTTTTCAT	ACTGCATTCT	AGCTGGGACA	TTATTGACCT	GACCATAATC	TTGATGCCAC	5220
TTAGCCAACA	AATCGTTTAC	CGCTCCGCGA	ACACTTGAAT	TGCTGGGGTC	TTCCACTTGG	5280
AGAAAGCTAT	CGCTACTTGC	CAAACCAGGC	AAATCAATAC	TATAAGTCAT	CGGAGCACGA	5340
TCGACCGCAA	GAAGAGTGGG	ATTATTCTCT	AACAAGGTCT	CATCCACTAC	GAGAAGTGCT	5400
CCAGGATAGA	GGCGACTGTC	GTTGGTAGCT	GTTACAGAAA	TATCACTTGT	ATTTGTGCGAC	5460

293

AAGCTCCGCT	TCTTTCTTTC	GATAACAACA	AACTCATCGG	GTAGCTGATT	ACCCCTCTTG	5520
ATGAAACGAT	TTTCAATACT	TTCTCCCTGA	TGGGTCAAGA	GTTTCTTTTT	ATCGTAATTC	5580
ATAGCTAGTA	TAAAGTCATT	TACTGCTTTA	TTTGCCATCT	TCTACCTCCT	AATAAGTTCC	5640
TGGATTGAGT	TGCATAAACT	CAGACTTGTT	CAGCGAAATC	AGCCGTGGTT	GGACTAAGTA	5700
ATCCAAAATT	TCCTCGTACA	ATTCTTCTGA	GACATTGCGT	CGCCGTCTGG	CTAAATAAGA	5760
AGTCGGAATG	ACCGTATTAT	CCAACATAAA	TACCTTATCT	AAGTCAATCA	AGGTTGGTCT	5820
TGTAAAAGGA	TTACGAGCTA	GATCCGGCTC	TTCTATCATA	AAGTTCTTGA	CCAAACGTCT	5880
GGTCAAGAGA	GCTGGTTTGA	AGGTCTGATT	TTTAACCAAC	TCTTTGTTTT	TAGTCATGCT	5940
GTGTGCAATA	CAGATATACA	TATGATTCTT	CACAGCCAAA	TCGCTACTAA	TAGTCGGAAA	6000
AGGCAAATAA	AGAGCTACAA	CATCTCCTCT	CTTAATCAAG	CAAGAGCACC	CCCTTTTCTC	6060
CTAATGTAAC	ATAGACAGGA	TTGACCAAGT	CTTCTGATTG	ACTCAGAATT	TCCAAAGTTT	6120
GAGTTTGGCG	CGCTGTCAAT	TTAGTAGCAT	CTTGCTCTTT	CAATACAAAA	TGCTTGTCGC	6180
CAATAACCTT	GACAATATAA	TCCTTCTCCA	AAGCTGACTG	GTAAATCCAC	ATCAGATGTT	6240
GTCTGTCCTG	AGAACTCAAG	AGAGAAGGAT	TTTCAAGCCT	CCCGATAGTC	TGATAAAAAAT	6300
CAAAAACAGG	AGCTAACTCC	TGCCAATCTG	ATTGGCTAGT	TGTCAAGGCT	AGAAAAAGGG	6360
CTTTGCGAGC	TGATACTTCT	TGGTTAGCCT	TGAGAGTTAC	TTTCCCCTCC	AAGTTTTTTA	6420
GAAATCGGGA	AACTCCAGAA	AGCAAATTTT	TCTCTAACTG	CGAGAAATAA	AAACCTTTTCG	6480
TTCCAGACA	TAAGTCTTTC	ATGTCGCTTT	CTCTAGCAAA	TAAGAGCTCA	AACATTTGAT	6540
AGTAAAAGAA	AAATATCTGG	CACTGGGTCG	CGCTCATCTT	TTCTTATCG	GCTTCTTTTT	6600
TTAACCAGAG	CAAGGGCGAC	AGGTAGCTGG	ATTGAGACAT	TTCTCTACC	TCCTACTCTT	6660
TTTTAACTGG	AGCATCTGCA	CTAGCTGCCA	CTTCTTTTGA	CTGGATACTT	TCCCACTGGT	6720
TAATCTCCTC	TGAGATAAGA	CCTTCGCATG	TCTTGACAAA	TAGGGCAAAA	GCCTTGGTCT	6780
TTCTGCATA	TTTCTCCGTT	TGGCATTGAT	AGAGGAATTT	TTCTTTCTCC	AGGAGTTGCG	6840
CAGTTTTTTG	GTAAGAAATC	CAATTTTCCT	TTGCATTATA	CAAATTGATA	ATCCCCTCAC	6900
ACAGCAAGCC	GAGACTGGAT	AAGGCAACCG	AAATCAAACG	GTAGCGATCA	CCTGGCATAG	6960
GAATAGCACA	AAAGACAGCT	ATGAGGAAAC	CTGCCACGAT	TTCTGTTATT	TTTAATACCT	7020
TATAGCGCCT	ACGATGTTGA	ACGCTTTTCT	TTAAAAAATG	AGCTATCTGT	ACGTCTAATC	7080
GCTCTGTCAG	GTACATTTCT	TCTGGCGTCA	TATTCGTAAC	TCCTTTCATT	TACTTTGATA	7140
ATCAGGG						7147

294

(2) INFORMATION FOR SEQ ID NO: 24:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 755 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

CCGCATGGGA TTGGTGTCCCT TTGGGCAAT CTCTTTGACC AAACGGAAA CATGTTTAT	60
GCGCCTGCCT TTAAGTCCCT TGTCGGCGGT ACGTCTATAT GATCCTAGTC GCAAAAGTTC	120
CGCGCTTTGG AGCCATTACC ACTATCGGCC TTGTCATTGC CCTCTTTTTC TTGGGAACCTA	180
AACACGGTGC TGGTTCCTTC CTCCTGGAA TTATCTGTGG CCTCCTAGCA GATGGAGTAG	240
CTCATTTAGG AAAATACAAG GACAAAACAA AGAACTTCCT TTCTTTCATT ATTTTCGCTT	300
TTAGTACAAC AGGACCAATC TTGCTTATGT GGATTGCGCC CAAAGCCTAT ATGGCTACTC	360
TTCTGGCAAG AGGAAAATCC CAAGAATATA TCGACCGTAT CATGGTCGCT CCAAACCTG	420
GAACTGTCCCT TCTATTTATC GCAAGTATTG TCATCGGAGC CCTAGTGGGT GCCTTGATTG	480
GACAAGCCTT GAGTAAAAAA TTGCCCAGA AAATCTGATC AGTTAAAAAG AGCCACGCGG	540
CTCTTTTSTA TTTATGGCTC AATTTCTTAG TCAAGAAATC TCCAAGAAT TGGATTGCAA	600
AGATAATCAA AATGATAATA ATGGTTGCCA AGATGGTCAC ATCGTGATTG TAGCGGTAA	660
ATCCATAAGC GATGGCTACG TTACCGATAC CACCAGCTCC AACCACACCG GCCATAGCTG	720
TTtccCAACA AGGGaAtCAA GGTcACAGTC GTCAC	755

(2) INFORMATION FOR SEQ ID NO: 25:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3010 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

TTCAATTGGT ATCTCAATCA ACGGTCTTCA CATGGTTTCA ACTGGTTTGA CTCTTGAAAA	60
AGCGAAAGCT GCTGGTTACA ACGCAACTGA AACAGGCTTT AACGATCTTC AAAAACCAGA	120
ATTCATGAAA CATGACAACC ATGAAGTAGC AATTAAGATT GTCTTTGACA AAGATAGCCG	180
TGAAATTCTT GGTGCCCAAA TGGTTTCACA TGATATTGCA ATTAGCATGG GAATCCACAT	240
GTTCTCACTT GCTATCCAAG AGCATGTGAC AATTGATAAA TTGGCATTGA CAGACCTCTT	300

295

CTTCTTGCCA	CACTTCAACA	AACCATACAA	CTACATCACA	ATGGCTGCCC	TTACGGCTGA	360
AAATTAAAAA	TGAATGAGCT	ATCTGGCCTT	AAGTTAAGGT	CAGATAGTTT	TTAGCTAATT	420
TGTCCCCATA	CAATTATAGT	TTTTTTATCT	TGTGCTTCAT	TCTGTTCTGA	CTTAAATGA	480
AAAGGTAGCT	ACCAATACAA	ATGATGAGGA	TAAAACAAAT	GACTGAAAAT	CGTTATGAAC	540
TAAATAAAAA	CTTGGCACAG	ATGCTCAAGG	GTGGTGTTAT	TATGGATGTG	CAGAATCCTG	600
AACAGGCTCG	TATCGCAGAA	GCTGCTGGTG	CGGCAGCTGT	GATGGCCTTG	GAACGAATTC	660
CGGCTGATAT	TCGTGCAGCT	GGAGGAGTTT	CCCGCATGAG	CGACCCAAAG	ATGATTAAGG	720
AAATCCAAGA	AGCGGTTAGT	ATTCCAGTAA	TGGCTAAGGT	CAGAATCGGG	CATTTTGTTG	780
AAGCTCAGAT	TTTAGAGGCT	ATTGAAATG	ATTATATCGA	CGAGAGTGAA	GTTCTATCTC	840
CAGCTGATGA	CCGTTTCCAT	GTGGACAAGA	AAGAATTCCA	AGTTCCTTTT	GTCTGTGGTG	900
CTAAGGATTT	GGGTGAAGCC	TTGCGTCGTA	TCGCTGAAGG	TGCTTCCATG	ATTCGTACCA	960
AAGGAGAACC	AGGGACAGGG	GATATCGTCC	AAGCTGTTTC	TCATATGCGT	ATGATGAATC	1020
AGGAAATTCG	CCGCATTCAA	AACTTACGTG	AGGACGAGCT	TTATGTTGCT	GCCAAGGATT	1080
TGCAAGTCCC	TGTAGAATTG	GTCCAATATG	TTCATGAACA	TGGAAAATG	CCAGTTGTAA	1140
ATTTGCTGCT	TGGAGGTGTT	GCAACGCCAG	CAGATGCTGC	GTTAATGATG	CAATTAGGGG	1200
CAGAGGGGGT	CTTTGTCGGT	TCAGGTATTT	TCAAGTCAGG	AGATCCTGTT	AAACGAGCGA	1260
GTGCCATTGT	TAAGGCTGTG	ACTAACTTCC	GTAATCCTCA	AATCCTAGCT	CAAATCTCTG	1320
AAGATTTAGG	AGAAGCCATG	GTTGGTATTA	ATGAAAATGA	AATCCAAATT	CTCATGGCTG	1380
AACGAGGAAA	ATAGATGAAA	ATCGGAATAT	TGGCCTTGCA	AGGGGCCTTT	GCAGAACATG	1440
CAAAAGTGCT	AGATCAATTA	GGTGTCGAGA	GTGTAGAACT	CAGAAATCTA	GATGATTTTC	1500
AGCAAGATCA	GAGTGAATTG	TCGGGTTTGA	TTTTGCCTGG	TGGTGAGTCT	ACAACCATGG	1560
GCAAGCTCTT	ACGTGACCAG	AACATGCTAC	TTCCTATCCG	AGAAGCCATT	CTATCTGGCT	1620
TACCACTGTT	TGGGACCTGT	GCGGGCTTAA	TTTTGCTGGC	TAAGGAAATC	ACTTCTCAGA	1680
AAGAGAGTCA	TCTAGGAACT	ATGGATATGG	TGGTCGAGCG	TAATGCTTAT	GGGCGCCAAT	1740
TAGGAAGTTT	CTACACGGAA	GCAGAATGTA	AGGGAGTTGG	CAAGATTCCA	ATGACCTTTA	1800
TCCGTGGTCC	GATTATCAGT	AGTGTTGGTG	AGGGTGTTAG	AATTTTAGCA	ACAGTGAACA	1860
ATCAAATTGT	TGCAGCCCAA	GAAAAAATA	TGTTGGTAAG	TTCTTTTCAT	CCAGAATTGA	1920
CTGATGATGT	GCGCTTGAC	CAGTACTTTA	TCAATATGTG	TAAAGAAAAA	AGTTGAGATT	1980
GAATTTCTCA	ACTTTTTTAC	ATGTAATAAA	CAATAGCGAT	GTATTGAAGT	GCGGACGCAG	2040

296

CTAGGATAAA GAGATGCCAA ATCATGTGGA AATAAGGTTT TTTCTTGGCA TAAATCCAG	2100
CTCCAACTGT ATAACAGAGT CCGCCAGTTA CCATGAGACT CCAGAAAACG GGTGTCGTTT	2160
GACTGATAAT GGCAGGAATG ATAGCCAGAA CCAACCAGCC CATAATCAGG TAAAGAGCAA	2220
GGCTAAATTT CTCATTGACC TTTTGTAGCA AGATTTTATA GAGAATACCA AAGATGGTCG	2280
TTCCCCATTG GATGACAATA ATCAGATAGC CAAACCAGTT ATTCATCAAG GTCAAGACAA	2340
CGGGCGTGTA TGAGCCGGCA ATGGCAACGT AAATCATAGA ATGGTCAATG ATTCGCAAAA	2400
CATATTTGTG GGTCGAACCA TAGGCCATAG AGTGATAAAT GGTGGATGAT AGGAACATGA	2460
GAAAGAGACT GATGACGAAA ATGGAAACGC CGATAGAGGA TAAAAATCCG TGTGCTTCAT	2520
AACATATAGT GGATGAAATA GGCAGCAAGA TAAGCATGAT GACTGCACCC ACAGCATGGG	2580
TCACGCTATT AGCAATCTCC TCTCCAAAAC TGAGTTGTTT GCTGAGTTTA AGACTAGTGT	2640
TCATTGGATT ACCTCCTCTT GAGTATGATC GATTAAGTCT AGAGTTTGAT GATAGAGTTT	2700
AACGGTTTGG CAGCTGGTTT GGATAATAGG GTTAGCTGGG TCAATTCCTT GGTTTCATGA	2760
GTCCACAAAA GCATCGTAGA GTTGGTCTGA ACTTGCTTGA GTTTGTAGAG TATTAAGTGT	2820
CTGGGCTATT TCTTGAATAG AAAATACAGA CTTGAGGGTT GTGATAGCAA TCAAACGGGC	2880
AATCTGTTGG CGTTGGTATT TTTTTTTGTC AGGCTTTGTC AGGTAACCAT TTTTCACATA	2940
ATTGTTGACC ATAGATGCTG TTAGGCCCTT GTCTTTATTA GGAGAGATAG GGGCGCAGAC	3000
CTGATTGACA	3010

(2) INFORMATION FOR SEQ ID NO: 26:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15213 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

CATAAATCGG TGCAAATAAC TTAATAGTGA AGTAGCCATT TCTTTCGTAT TTACCTGAGG	60
CATATTCCCT AGACGAAAGA ATATTATTAT CAATCAAATC ATTGAATGAA CGTAGTCTTT	120
CAACTTCTTC TACTGTTAGA TTTCTGACAA CATTTGTTGC ATAGACCTTA TTTCCATCAG	180
GATCAGGATG GTACTCATTT GTAACTTTTC TAAGAAGTTG TTGTTTTTGA TTCGTATCCA	240
ATTTAAGAAT TGAATTTCCCT TCGAGATATT CCAACATATA AACAACGTCA AACATGTTGT	300
GGACATATTG CTTCAAATCA TCTGCATTAT TAAATCTTGT AGTTGGATCA AGTACTTGTA	360
ATCGTCGACT TTCTGTACTA TCAGATTTTG AATGTTTCAA GATGGAGTTG ATGGTAATGG	420

297

TCGCATCATC TGGATGGTCT GGTGCTTGTA ATAATCCTTT AGCAAAGAAC TCTGGTCCCA	480
AGCCACTTCT TCGACCATAT CCTCCAAGAT AAATGTCCTG ATCTGAGTCA TGTGTCATCT	540
CATGCGTATA AGTAATAGCT CCATCCTTAT CCAACATTCG ATAACCCATA TAATAAACTG	600
CATCACCTGT AGCATAAGCA CCGTGTTGAT TATGCCCAAC TTTATTTCCA ACAGGTCCAA	660
AGAAATGTTG CATTCGAGGA TTTGGATTAT CAAAATCTGC CACTTCTGTA GCTTTCCTA	720
CGGTATTATC ATCGCCAAAT TTATAAGCAT CGTAAAGCAA AATATTTCTA TAAAGTTTTT	780
CACGTGCATT GTCGTCTAAA ATACGATACC AATAATCGTA GTGATCTCGC TGACGTTTGG	840
CTGTTTCACG CGCATTTTCT TCAACAAAAT CATTGAGAGC CTTGCCCGCT TTAGGGTCAC	900
TACTGCGGTA GCGATCATAA GCTCCAAATC CTAGACTAGA CATGGTCGAG ATGACAAATA	960
CGGATCTCTC TGGCAAGGTC AGGAGAGGCA AGACCATATT GCGGTATTTT CATGTGGCAC	1020
TCGTGATACG ATCATAAACA CCGATAGAAT ACTTGGTGCC AGCTAACCTT TGCTTCGTTT	1080
TCACCTCTTC GATAGTGGAT TTTTCTTCGA CAATGTAAGC CTTAGTCTCT GATTTAAACC	1140
AGTCATTATT GCTTGTATTT GGTAAAAAGA CTTTTCGGTA ATGTTCCAGC GTGCTAAACA	1200
AATCTGTCGT TCCATGTTGA CTGGCAAGAC TGATACCATA AGTATCGACA TTAATCTTAG	1260
CTAGAAGATT GTTAAAGCCA GATTTACCCA ACTCAATCAG AGTATCTAAT GGTGAAGCAT	1320
TCCCCTTACC AAAGAAGTCC AAATGGTACA GAACTAGGTC TTTGACATTC ACCTGACCAT	1380
AGCTAAAGTT ATACCACCGT TCCAGATAGG TCAAGCCAAG TAGCAAGGCT TCCTTGTTGC	1440
GTTTGATTTT ATCTACAAGA TAACCTTCAG TGACGGGGTT AGCACTAGCC AGTCCAGCAT	1500
CCGCTGACAA GAGTTTTTTC AAACTGTCTT CCAGTTGTTG TTTTGTTTTG GCGAACTGGT	1560
CTTCTAGATA GAGCTCAGTT TGCTTGACGT TTGGAGAAAT ACCCAGCGTC TTTCTGATGG	1620
CTTCTGAATG ATAGTCAACC TTTTGTAAGT CAGGTAAGAC TTGCTTGATG ATAGAGGTTT	1680
GGTCATACAG GAATTGGTTT GGCGTATAGA GAAGTCCAGT ATTGCCCAGA CTATATCTTG	1740
CTAATTTGGC GAAATCATTC TGGTATTTGA GATCCAGCTT CTCAGATAAA TCATCCTTGT	1800
AGTGAAGCAA GAGTTTGTTC GCAGTCTGTT TGTTAGAAAC AATGTCTGTG ATGACTTGGT	1860
TGTCCTTCAT CATGACTGCT GACAAGAGTT CTTTTTGATA TAAAAGACTG TTCTCATTGA	1920
CCAGGTTTCC GTATTTGACG ATGGTTGCCT TGTGTAGAA AGGTAGCAAT TTTTCAATGT	1980
TTTTATAAGT CAAGTTGCGC TTAGCTTGAT AATAGGCCAC CTTAGAAAAA TCACTGTCTT	2040
TTTTGCCACT TGTTGAAAGT GGCTCCACTG TTGGTAAAAT GAGAGGATTG ATTTCTGCTT	2100
TTTGTCTGTC AATTTGAGAA GCATCTAGCA TTGTTCTCTT TTCTTCAAAG GATTCCTTGC	2160

298

TGACGACCTC ATCCTTGACC AAGGTGACAT TGTAGACTCT GTTGGCCTTG CTGCTGAATG	2220
TGTCCTTTAC CTTCATTTTCG TTATAGTGGT AACCAGTGAT GGCATTTCCG TTGGTTACAT	2280
TAACATCGCT GAGAACATTG GTCAAACCTC CAGCATGCCT AACATCACCA GAAGTTCGAT	2340
CCCACAAATT GCCTGCCACT CCAGCGACTC TACCAAAGTG CTTGACATTG TTGATATCAC	2400
CTTCAGCATA GCTATCTTGG ATCTGTGCAT CTCGGTCTAC TAGGCCTGCA AGTCCACCCA	2460
CAGTCTGATC TGAAGTATTT GTGTTAGATG AAATGGCTAC TGTCGCTTTT GACTTAGTAA	2520
GTAAAGCCTT GTCACCTGTC AAATGACCGA CCATACCACC GATATTGTAG GCAGCAGTCG	2580
TTTCATAAGT GTTGATAATT CTTCCCTTGA AACTGCTCTC TGTGATGCTT GATTGCTCAG	2640
CCTTAGCCAG CAAACCACCG ATACCACGTT CACCAGCCAG AACACCATCG ACGTGAACCT	2700
GCTTAATTTT TGTGTTATTC TGAGCTTCAT TTGCCAGTGA ACCGATATCA TCTTCCCTG	2760
AAATAGCAAC ATTTTTTAGA CTCAGTTTTT CTACTGTAGC ACCACTCAAG TTTTCAAACA	2820
GAGGTTTTTT CAAATTATAG ATAGCATAAT TCTTGCCATC TTTTTCACCG ATTAAACGAC	2880
CAGTAAAGGT GTCCTTGATA TAGGATCTTT CATCAGGACC AAGCTCCACT TCGTTAGCAT	2940
TCAGGCTGGC CGCTAAATGA TAGGTTCCAG AGGGATTTTG GTTTATAGCT TTGACCAGAT	3000
TACTAAAGGA AGTAAAGTTT GTTGTTTCTT CTGTTCCCTT CTTAGCTAGA TAGAAGGTAA	3060
AATTATCTTT ATATCTGCTT TCTATCTCCT GCTGAAGCTT CTCTACTTTT GCTGTGATTT	3120
TATAAAGGAT TTTATCATTT TTTCTTTCCT CTGATATTGA TGCTACTGGT AGGTATACAT	3180
CTTTGAATGA AGAAGATTTC ACTTTAACAA AGTAGCTATT TGGATTGCTT GGAACCTGCT	3240
CTAACGAAAT GTGTTGTTTA TAAGTACCAT TTGACAAACT GTATAACTCT AGGTCGGAAA	3300
CATTTCTTAA TTCAAGTGTT TTCTCTGGTT CTTCTACCTT TTTATCAGGG TCTAGTTCAT	3360
TTTCTTGTTT AATTTCTTCG TTTCCATTG AATTGGATGT GTTTGATTCG GTTGAAACAT	3420
CCTCAGTTGA ATTTCCGTTT GATGGTTCTG GTTCTGTTTG TCCATTCTCT GATGTTGTAT	3480
TACCTGAATT TTCTGGTTTT GTGTCAGTTC CGTTTTTTTC TGGTTGATTT GATTCTTCAA	3540
CTGGTGTTTT TGAATCACTA GGTATTATGG ATACTTCTCC AGTATTTTCG TTAGCTATTT	3600
TCCCAGAGTT TGTTTGTGTT TCTTCTGCAG GTTGAAGTGG TTTTCTGTGTT TCTTGATTTG	3660
AGGTACCTTC TACTGTGCCT TCATTTGGAT TTACTGGAAC TTCTTCTACA GTTTTTTCTG	3720
AATTTTCATT TTTAGAGTCA TTATGTTCTG GTTTATTTGA TTCTCCAAC GAGGTTGTCG	3780
AATCACTAGG ATTACTGGAC ACTTCCCCAG TATTTTGGCT AGATGTATCT GGTGATACCT	3840
TCTCTGAATT CGTTGTTGAT TCTTCTGCAG GTTGAAGTGG ATTTTCTGCT TCTTGAATTG	3900
AGGTTCCCTC TGTAGTACCT TCATTTGGAT TTACTGGTGT TTCTTCTGTT GGTTTTACTG	3960

GAACCTCTTC	AGTTTTTTCT	GGACCTTGTT	CTTTGGTCTT	CTCAACCGGA	GTTTCAGGTT	4020
TTACTTGCTC	AATATTACCC	TTATATTCTG	GAAGCGGTGC	TACCTGCTCT	GGTTCACCTT	4080
TATCACTTAC	CACAGTATCT	GGCGACTCTG	GTTGAACCTC	AGTCTCACCT	TTGTCGGTCA	4140
CAACTGCTTC	GGGTAATGTA	GGTTGAACCT	CTGGTTCGCC	TTTGTCACCT	ACTACAGCTT	4200
CGGGCAACTC	AGGCTGAATT	GCGGGTTCAA	CAATAGCTCC	AGACTGTACG	TCCTTATGTT	4260
CTACACCAGT	CTCAGGTTGT	TCCTTTATAA	CTTGAGTTTT	TTTAGTACCT	TTTTCGACTA	4320
TTCTTGGA	AGGCGCAGTC	GTTGAAGTTG	AAACAATTC	TCGCGAAACT	TCTTCCTTGT	4380
TTACAGAGAA	TATTCTGACG	ATTTCAACTT	TCTTACCTAA	TTTACCTTCT	TGTTTTACTC	4440
TTACAGTTCC	TTCAGCTAAA	TCAGGATTTT	CTTGAATTC	TTCTTGAAAA	TCTATTTTTG	4500
TCTCCATAGT	TCCTCACGA	TATAAGAGTT	CAGGTTTGTT	CAATTGACCT	GATAAACTT	4560
CATCCTGTGG	ATTTAATGTA	TTTACCCAG	TCTTTTCTTT	TGGAGAAATC	TTCTCCTCTT	4620
TCTTCGTTTC	TAGATTCTTA	TGTTCGGCTA	ATTGTTCTTG	AGAATCTGAA	GATTGTTTCT	4680
CTTCTTTTCT	TGGATTGATT	AATTCAGTAG	AGAAAGGTTT	TTCAACTACT	TGAACTTCTG	4740
TCGGCTTAGT	TGAAGAAACA	GGTGTGTTG	CCTGAATAGC	TTGTACTGTT	GATGGATGGT	4800
CTACAAAATT	CGGTGTAACA	TTATAATCCA	CCTTTTGTTG	TTTTGTAGGA	GTGGCAACTG	4860
AACTCTTTTG	ATTACTTACT	TCAGACTCAG	AAGTCGTTTT	TCCCTCTTTG	ATATATCCAA	4920
TATAAGTGTA	ACCTGAAATC	TCTTTAGGAA	GAGGTAATTT	TTCTCCAGAG	GTCAATTCAT	4980
AGTCCGTATT	GTAATTAGC	AAAAGATGAT	TTTCTAAAGC	ATGGACTGAA	ACTAAGACAC	5040
CATTTCTTAT	CCCTGCAACC	AATACTAAAT	GTAATACCGT	TTTATCTTAA	ACCTTTTTCT	5100
TGGAAACAGC	AAAAATTAAA	ATTCCCATAG	CAGCTAAGCT	AGCACCAGCA	ACTAGGGCTT	5160
GCCTCTCATT	CTTGCTTCCA	GTATTGCGCA	ATTCCGCCAG	TTGATTTTGA	GAATTTAACT	5220
TATAACAAG	ATAATAAGTT	TCATCATCAT	TCTCCACGTA	TGTCGGAATA	TCATAGACAA	5280
GCTGCTTCTT	TTCTTCTGAT	GATAGCTCTG	AATCTGCCAC	ATATTTATAG	TGAACTCCCG	5340
CAGTTTCTTG	AGCATCCACA	GATGAACTAG	CTAATACAGA	CATAAAAAAT	AAACTTGAAA	5400
TCGTTGCAGA	TACAAGTCCT	ACTGATAATT	TTCTAAATGA	AAAACGCTCT	TGTTTTTCAC	5460
CAAAATACTT	TTCCATTATT	CCTCCTTGAA	ATAAAATTTA	TATATGTTAC	AAAGACCTTT	5520
ATTATATTAG	TGTATTATCT	ATTATCTATA	GAAAAGGCAG	TATACCTTAA	TTATACTCTT	5580
AATTTACAAA	AAAGTCTTAA	AATTGAGATG	CGCTTTCATA	CTTTGTTTTA	TATTATTTGG	5640
AGGTACAATA	ACACCTACCA	TGAAATTTAC	ACGGTAGGTG	TTACTCATAT	CACTAATCGT	5700

300

TCTAAAAATG	GTTTGAGGCA	GTTGAGGAGA	ATTCCTTCTA	TCCAGCTTCC	TTGTGCTGAT	5760
GAGCGATGGT	CTTCCTGCAG	GCTTTTTTTT	AGAAAAATCTC	GGACTTGTTT	TGGTGCGATT	5820
TCAAATTCAA	AGGCTTTCAT	TTTATAGAAA	AAGTCGATGA	GATGATCTGA	CAGGTATTCA	5880
GTTGAAAAGG	GTACTTCACC	ACTTTTTCTA	TATTCTAATA	AGAGTCTAGA	AAATCGAGCT	5940
TTTTCTTCAG	GAAGCTCACG	AAAATAGGAA	TTGAGGATCC	AAGTCTGCTT	CTGTTTTCTT	6000
TCAATTGGAT	CCTGACTGGC	AATTCGTTGG	TCTTTTTCCA	GCTCTTTTTG	GTATTGTTTG	6060
GCCTTGATAG	CTCGTTCTGC	TCTATTTTTA	CCAAAAAGAA	TTTTTTCCCA	CTTGCGTTCT	6120
TCTTGAGTCA	GGGTCTCTGT	AAAGCCAAAG	TAATCTTGAT	AAGCACGCTC	TGCGGGTCCC	6180
ATGGCTAGAA	CCAGATTGTC	TGCATATTGC	TTGGCGATTT	TATCCCTCTT	CTTGCGTTCT	6240
TTCTCTGCCT	GGATACGGAG	TTCTTGTTTC	TAGTCAATTT	TCTCCTTGCC	TAGCTTGACA	6300
AGGTAGAGTT	GGTCATCCGA	TTTCCCAAGT	AAAAAGGGTT	TGATACACTT	TTCAAGGACT	6360
TCTTCCATCC	GAGCCTTTTT	CTTTGGTTCC	GCCTTGGTCC	AACCTCCTCC	CTGAAAGACT	6420
TCTAGGAAAA	GCTGGTAGTC	TCTCTCAGGC	GCAAATTGAT	TGCCACGATT	GGGTTTGAAA	6480
ACACCTTTTT	CCCAGAGCCA	TTTLAGAAGT	CGCTCGTCAA	AGTTACTTTT	ATTGACCTTG	6540
ATTTTTTCCT	TTTTCTGAGC	TTTTCTGGTT	AGATTTTCAA	CCTTTCTGAG	CAGTTTTCCT	6600
TCCTCTTCCA	ATTGCTGGTC	AAGGGACAAT	CGATGAAAAT	GACGAACACA	GTCGCTACCA	6660
ATTGGAAAGA	GGCGTTGGCC	TGTGACACCG	TAAAGAGTT	CATAAGCGTA	TTTGATGGCA	6720
TTTCCACAGA	CACAATTGCT	ACGGCCGATA	CCGTAAAAAA	TAAAGGAAAC	TTCATTCCAT	6780
TCCTTGGTAG	CTTGTTCCCA	AGTATCCGCT	TTCGAAGCCT	GTAAGAACTGC	ATCGTGCAGG	6840
GATTTTCTAA	CTGGAAGTGT	CATGAGGTCT	CCTTTCTAAT	ACTCAATAAA	AATCAAAGAG	6900
CAAAC TAGAA	AGCTAGCCGC	AATCAGCTCA	AAACACTGTT	TTGAGGTTGT	AGATAGAACT	6960
GACGAAGTCA	GCTCAAAACA	CTGTTTGTAG	GTTGTGGATA	GAAGTGACGA	AGTCAGTAAC	7020
CATATATACA	GCAAGGCGAA	GCTGACGTGG	TTTGAAGAGA	TTTTCAAAGA	GTATAAGTTA	7080
TACTTTTACA	ACTTGAACCT	CGTCTTTACC	GAGTAAAATC	AAGTATTTTT	CAATATTTTC	7140
AATCGAATAG	GCTCGTGATA	AAGCCTCTTC	GTATAGAGCT	AACTGACCAC	GATAGCGGTC	7200
TACGAGTTGA	CTTGGTTTCAT	CATAGCGGTC	TGCTTTGTAG	TCGAACAGAA	CAATTTTGTT	7260
TTTCGTAAAGC	AGATAGCCAT	CAAGGATACC	ACGGACAACA	AAGTCTTCCT	GACTCTTTTG	7320
GTCTCGTTTG	AGCATGGAGA	AAGGTTGCTC	GCGATAAAGA	TGGTCGGTAT	TAGCAAGAAT	7380
TTCTTGACCG	AGTACTGTGT	CAAAGAAAGC	AAGAATTTTA	TCAAGATTGA	TCTTGTCTCT	7440
GACAGCTTGG	CTAGTTTGAA	CTTGTTTGAG	TGTTTCTGTT	AGGCTAGCAA	GGGTTAGTTG	7500

301

CTGGCTGAGG TCAATTCTCT GCATGAGTTC GTGAGTAGCA CTACCAATCT CAGCTCCAGT	7560
TACCTTTTCT TTGGTTGAAA AATCTGGCAA ATCGAAGCTG ATTTTCTTGC CTACTGACTG	7620
ACCTTGACCA GCAATCTCGA CACCTTCCAT ATCCATAACT GGTTTCGTAGA ATTTCTTGAT	7680
TTGACTTGGG GTTTGAACAC TAGGAAGTTC AATAGCTGCG CGGTGAAGAG TATTATAAAC	7740
TTCCACCTCC TTCAGCATTT CCAGAGCTTC TTTGATGGTA TCTGACTGAC GATTGTCTGC	7800
TTGGGAGCTA TCTTGAGAG GACTCTTGGT TTCCAACCTC CCGATAGCTT CTCTGGTCAA	7860
CTGATCTTCG CCAATAAAAC GATAACTAAA GTTGAGCTTG TCCTTAGTAA ACACTTTACT	7920
GATAGCCCAA AGCCAATCTT GGAAATTCG TGCTTGCACT TAGTATTGC TATTTAGTTT	7980
CCCATTTTGG GCTGCTGGGT ATTCCTTGA TTCCAGCTTT TCACGAGAAC CCTTGCCGAC	8040
AAGATAGAGC TTTTCTCAG CCCGCGTCAT AGCAACATAC AGCAAACGCA TCTGCTCAGA	8100
ATAGCTTGCT AGCTGTAATT CCTCTTCGTT CTGCCTATAG GTCAGACTAG GAATGGAGAG	8160
TTTGATGGTT TTAGGATAGT GGTCTTCTAC TGCCCTGTG TCCATCTTGG CAATATATTT	8220
GACACCAAGA CCATTCTGAC GACTGAGAAT GACTTCTGAC ATAGAGTCTT GCTTGTGAA	8280
ATCTTGATCC ATATTGAGGA TAAAGACGTA AGGAAACTCC AGCCCTTAC TCTTGTTGAT	8340
GGTCATGAGC TCTACTGCAT CTTTGGCGG TGCGACGGCC ACGCTTGCCA AATCGTGCTG	8400
GGCTTCTAAG ACTTGGTCAA TCATACGAAT AAAACGCGAC AAACCTTTGA AATTGCTCTT	8460
TTCAAATTGA TCAGCAGCA GTGCTAGGGC ATAGAGATTG GCCTGCCTAG CAGGACCATT	8520
CGGCAAAGCC CCAACATAGT CATAATAAAA ACGGTCGTTG TAAATCTTCC AAATCAAGTC	8580
ATAGAGAGAG TGGGTTTGG CATAAAGCG CCAAGAAGCT AGGATATCCA TGAATTGCTT	8640
TAGTTTTTCA GCTAGAGCTG TGTGAATCAA GCCTTTTGA CTACTTGCCA TTTTTTGTGC	8700
ATTGACCAGT TTCTCATAGA GATTTTCGTG GATTTTATCC TCTGCTTCT GAAGGGACAA	8760
ACGTGCTAGC TCATCCTCAT CAAAACCAA CATTGGAGAC TTCATAAGGG CAACCAAGGC	8820
GTAGTCTTGC AGGGGATTGT GAATGACACG AAGAGTGCT AGCATGACTT GCACTTCTAG	8880
GGATTGGAGA TAATTGTTTT GCTCTCCGTC AGTTTGTACA GGAATTCGGT ACTCAGACAG	8940
GGCGAGGAGA ATCTGGTCAT TACGACTGCG GCTGGAGGTC AGAAGGGCAA TTTCTTAAA	9000
GGCAACACCT TTTTCTTGAT GAAGTTTCAG AATCTCCTG ATAATAAGC GCATTTGCGC	9060
TGTTAGTTTC GTTCTGTTT GACTCTCTTC TTCCTCACCT GTATCGTCCT TGTCGTAGAG	9120
GAGAAATGCT GCCTTGTTGT CTGGATTGGG AGTCAGTTT GTATTGGCAA AAACAAGCTG	9180
GTGCTTGTTA TCATAGTTGA TTTGCGCGAC CTCTTGGTCC ATGAGACGTT CAAAGACATC	9240

302

ATTGGTTGCT	GACAGCACTT	CTGAACTACT	ACGGAAATTT	TCCTTGAGGA	TAATGAGCCT	9300
GCCTTCTTGG	GGATTTTGCG	CATAGCGTTG	GAATTTCTCA	TTGAAAATCT	GCGGGTCTGC	9360
CTGACGGAAA	CGATAGATGG	ATTGCTTGAT	ATCTCCCACC	ATAAAGCGAT	TGTGGCCATT	9420
AGACAACAAT	TCCAGCATCC	GTTCTTGAAT	ATGGTTGGTA	TCCTGATACT	CATCGACCAT	9480
GACTTCATGG	AAGCGCTCCT	GATAAGACTC	ACGAACTTGT	GGGAAATTCT	CTAAAATCTC	9540
AATGGTGTA	TGGCTGATAT	CAGCGAATTC	GAAGGCATTT	TCCTGTCGTT	TTCTCTGACG	9600
ATAAGCCTCT	ACAAAATCGC	TCATGAAAGA	TTGGAAGGTT	TTAGCTAGTT	TCCAAGTGTC	9660
TCCATGATAA	CGTTCTTGAT	AGTCGAGAAT	CGCTATCTGG	TCTGATAATT	GTCCTAGTTT	9720
AGCAAACCTG	GTCTTTCTCT	CTTCGTTGTA	GGCATCAGCC	AGGGGCTTCA	AATCAGCCTA	9780
CGGCTGGCAT	TAGTCAGAGC	TCGACCGTTT	TTCTCCTTAG	AGATGGCGAC	AACACGCGCA	9840
AGCACTGCCT	GATAAGCCTG	ACTATCGGAC	TCCTGATTTA	GGGAGCCAAT	TTCATCCAGA	9900
ATTAAC TGAA	CATTTTCTAA	ATAGGCAGCC	TTTGCAAAC	CCTTGGCATC	GTTATCCAGA	9960
TGGTAACGGA	AAAAGCTTTC	CAAATCCCAA	AGGGCTTGTT	TGATTTGCTC	GGTCAGTTT	10020
TCTTTTTCAC	TGGTAAAATC	AGCTTTCTCA	AATCCTTTGA	GGAAAGATTC	ACTCAGCCAC	10080
TTTTGAGGAT	TACTGGTGGA	TTGGAGGAAG	TCATAGATTT	TATAGACCTG	CTGGCGCAGA	10140
CCCCGTTCGT	CCTTGCCACG	CCCAGCAAAG	TTTTTCAGCA	AATGACTAAA	GGTCTCTTTC	10200
TGTTTACCTT	GGTAATGCGC	TTCAAAGACC	TCATGAAAGA	CTTCGTTTTC	GAGAATAAGT	10260
TGCTCGCTTT	GGTTTGTAA	AATACGGA	TTAGGTGCAA	TATCAAGCAG	ATAACCATGT	10320
TTGCCAAGGA	ATTTTGTGT	GAAAGAATCC	ATGGTTCCAA	TGGCAGCGTT	GGGTAGGTCT	10380
GCCAACTGGC	GACCCAAGTG	TTGTTTGAGG	TCGACATCAT	CTGTTTCTTG	GATTTTCTTG	10440
CTGATTTTTT	TCTCTAAACG	TTCTTTAAGT	TCAGTTGCAG	CCTTGACGGT	AAAGGTTGAG	10500
ATAAAGAGTT	GAGAAATTTT	GACACCACGC	GCCAATTGGT	CCAGAATGCG	CTCTGCCATG	10560
ACAAAGGTCT	TTCCAGAACC	AGCCGATGCT	GAGACCAGGA	TATTCTGGGC	AGAAGGTAG	10620
ATAGCTTCGA	TTTGCTCGGC	AGTTTCTTTC	TGTTCTTTCG	TCGAATTTGC	TTCTGCTTCT	10680
TGCAGTTTTT	GAATCTCCTC	CTCACTTAAA	AAGGGAATAA	GCTTCATCGA	TTCAACTCCT	10740
CTCTTATTTT	TTCAAGCCAA	GCTTGCTTGA	GTTTTTCTCC	GACCAGACGC	TTGCCATCAG	10800
CTAGGTCCAA	CTTTTCTAGG	AAACGGGCTT	GGCCAGATG	GTAATTGGCT	TCAAAGCCTG	10860
TAATAGCCTG	ATGTTGCTGG	ACGTATGGGG	CAATGCTTCT	GCCATTTTCA	GTATAAGGAT	10920
TGATGGCGAA	CCGGCCTGCT	AAAATCTTCT	CAGCAGCTTT	CTTGTAAGA	TAGGCATTGT	10980
AGTCCAGTAG	GAGCTGAAAT	TCCTCATCTG	TCAGTTGATT	AGCCTTGTTT	TTGTTATAAA	11040

303

ATTCGCCTAA	ATAACTGCTT	TCTTTTCCA	AGAAGAGCCC	TTGGTATTTC	ATAGATTTCG	11100
TGGCTTCTAC	CACTGCTCCT	GCCAGACTTT	TTACCGCCAT	CAGAGATTGG	ACAGGTTTCAG	11160
CCATTTCCAA	GTACATGGCG	CCGAAAAAGT	TCTGCTCCCC	TTCTCTTTT	AGGGCAGCAA	11220
GATAGGTTGG	TAACTGAGAA	TTGAGCCCAT	TAAAGAAATG	AGGAAACTGG	AACTGAGTCA	11280
GACTGGATT	GTAAGTCTACT	ACTCCTATCG	CTCCATTAGC	TTTCAAACGG	TCAATCCGGT	11340
CCACCTTGCC	TCGTACAAAG	AACTGCGTC	CATTGTCTAA	TTGAATAAAG	GCTTGGTCTT	11400
TTCCACCAA	ATTTGCTTCT	TCTTTGATGG	TTTCGATGGC	TGGATTGTGT	CGGAGAATAT	11460
GTCCAGTTGT	CCGTGCAACA	TCAAGCAAAA	CTTCCTTGGT	AACTGGGCT	TCCAACTTT	11520
CTTGATAAAT	AGCTTCAAAT	TCGCGTTCTT	GACTGGTTTC	TTGAATAGCT	TGTTCTAGAC	11580
GTGGGTCAA	GGAATCTTCA	TTAGGCAACT	GTAAGGCGCG	TTCAAAGATA	CGATGCAAGA	11640
AATTCCTGTG	ACTACGGGCA	TCAGGATGCA	AACGTAATTC	CTCCTGCAAG	CCTAAAACGT	11700
AGCGTAGGAA	ATAACTGTAT	TCATTGCGAT	AAAACCTCTGT	CAAACCCGAC	GTAGACAGGT	11760
AAAACCTCTG	TTTGGCAGGA	TAGAGAGCTT	GCAAGGTGTC	CTTGGCTAAG	GTCTTGCTGC	11820
TTGGACTGGT	TGGGATAGCT	GGATTTTCCA	GACCTTGCTG	ATCTAGTTT	TTACCTATGA	11880
CACGCGACAG	AACCTTGACA	AAAGTCAAAT	CTTGCTCAGT	ATCGCTCATC	TCACCCTGCT	11940
GGTGATAGGC	AACCAGACTA	GACAAAAGAC	TGTGATAGGA	CCCATATCC	TCCTTAGACA	12000
GTCTTTTGTG	ATTCATCCTC	TTCTCTCTCC	GCCTAAATCC	AAAATGGATC	AACTCTTGAA	12060
GATAGGCAGA	TTCTTACTT	TCACTTTCGT	TAAAAAGGCT	TGGAGCCGAC	AAGAACAAC	12120
GCTTACGAGC	AGAATTGACC	AAGGAAAGCA	TAGTGTAGCG	ATTTTCTTTG	AGATTTTCAC	12180
TGCTGGCAAT	CAGTAATTGA	ACGCCTTCTT	CGGTGCTTGT	GTTTAGGTTT	TGCCTTCTT	12240
CATCTGTCAG	AAGACTGGTG	TTTGAGAAA	TTTTTGGTAA	ATTGTCCTGA	GTAGTCCAA	12300
TAGCATAGAC	AAAGTCAGCA	GTCAATGGTG	CAATCAAATC	GTAACCTCTG	ACCAGAACAG	12360
TGTCCACTGT	TGCTGGAATG	GTACGGTATT	GGGACAAACT	CATTCCAGAA	TGGAGCAAGG	12420
CTAGGAAGTC	TTCCAGACTA	ACCTGTGAAC	CAGCAAAAAC	AGTCGCAAAT	TGTTCTAAAA	12480
CATGGCAGAA	AGCCTTCCAA	ACTTCGGCTT	GTCTTTCCTG	TTCTACAGCT	TCCAAAGTGG	12540
TTGTCAAATC	TTGTAAGTGC	TTGGTCACAG	CTCCTTCTTT	TAGAAAGACA	CTCCATTTTT	12600
GTAGGAGTTT	TTCAGCCTTT	TGTTTTCGGC	TGGCAAAGAG	GGTTTCAAGA	GGTGCTAAAA	12660
TTCTCAGGCG	GAGGACATTC	AAACGCTCAA	GATTAAATTT	TCCATGGTGG	GATTTGGTGA	12720
AGGTTTGCTG	AAAGGCTGGC	AAGCCATTGA	TACCAAGATA	GCGGATATAT	TGCTCAAAAG	12780

304

CATCAATATC	AGACTGACTG	AGGTCAGTAT	ACAAATCAGT	TCTAAGAAGA	TTAATCAAAT	12840
CCTCCTGACG	AAAACGGTAA	CGTTTTAAAG	CTAAAATAGA	CTCGACAAAC	TGAGTCAAGG	12900
GATGATGAGC	CATGGCTTCG	CTTCTACCAA	GATAAAAAGG	AATCTGATAC	TGGTCAAAAA	12960
TGGTTTTGAG	AGATAACTGG	TAAGAAGCTA	CATCCCCCAA	GAGAATACGA	AAATGCTTGT	13020
AGCTCAGGTC	TGAGTTCTCA	TGTAATTTCT	GACGAATACT	ACGGGCTACT	AGCTCCAAC	13080
CCTCCTTTTG	CGTCAACAA	GACCAGATTT	GTAAATTTTC	ACGGTCTTTC	TCATCGACAT	13140
CCAAAGCGAG	TTCTGAAAAG	TCATAAGAAG	ACTCCAACAA	ACGAGAGGCC	TTGTCAAAAC	13200
TATCCATCTT	CTCATGAGTT	TGAGAACAGT	CCTGAGCAGG	CGTTTGGTAT	TTAGAAGCCA	13260
GATGATGGAG	AAATTTTACG	CTGGCTTGGT	AGAGATTGCC	CTCGCTAAAA	GGACTGGTAT	13320
AGGCTTTCTT	ACTAGCATAA	GCCCCGATAA	CAATCTCAAC	ACCTTTGCCG	TGAAGTAAGT	13380
CCACAACCCG	CTCTTCCTCA	GCAGAAAAAC	GAGTAAAGCC	GTCAATGACC	AAGGCGATTT	13440
GATTAAAAATC	ACTACTTACC	TTGTCAATCT	CAATAGCCTC	AATCAAATGG	GACAACTGAC	13500
TTTCCTGGGC	TAAGTACCT	TGATTAAGAT	AGGCTGTTAC	TTTCTCAAAA	ATCAAGAGTA	13560
AATCCGCCCT	CTTATCCTCA	TCTGTTAAAT	TCTCCAAGTC	CAAAAACTC	ATCTGAGATT	13620
TGGTCATCTC	ATGGTAAAGC	TCAATTAACT	GCTGGATCAA	TTGAGGATCC	TGCTTAATAG	13680
CGCCATAAAC	ACGCAAGTCC	TTGGGATCGA	GTTCGGCAAG	GCATTGTGTA	AAGGCCAACC	13740
CAAGACCGAT	ATCATCAAGA	GTAGTTTTCG	CTGGTAAATC	ATTCAAGACC	AGATAGCGAG	13800
CCATTTGAGC	AAAGCGCGTG	ACGGTAATCG	AAAAAGAAGC	CTGCTGGGAC	AAGTATTCCA	13860
GCACGCGCGC	TTCTTTTCA	AAAGAAAGAG	AGTTGGGGGC	AATGTAGAAG	ACCCGCTTGC	13920
CAGCTGCAAC	TAGCTCTTCT	GCCTCTCTTG	TTAGAATTTT	TGTCAAAGAA	GTCCGAATAT	13980
CAGTATAAAG	TAATTTTCATC	TCAGCCTCGT	TGGAATTTTT	CATCACCTTA	TATTATACCA	14040
TGATTAGCCT	CGTAAATCTG	TTAAAATATT	TAGGCCATCC	TTTCTTTTCT	TCATCATCTG	14100
CTAAATCTTA	AATACTTAGC	TTTACTTGTA	TTAGATAGAA	TAAGTCTGGC	TACTGAAAAT	14160
CACATAATAA	AAAAGCCTCG	GTAACAAGGC	TTTGAGTTTT	ATGATTGTTT	CTTAGGTACG	14220
GAATACACTT	CAATGTGTTG	TCCCAGTATC	TTAATGTCGA	CTGGTAGATT	GTCTGATTTA	14280
TCGCCATCAA	CATCGGACTC	TAATTCGATA	TCAGAAGAAG	TTTTAATATT	ACGTGCCTTT	14340
ATATATTCAA	TATTCTTGAT	AGAATGATTG	AACTATAGTA	AATTGAAACT	ATAATAGTAC	14400
ACCGTGGATG	CTAAAATATT	TCTAGAAATT	AATTTGATTT	CCCTAATCAA	GCTATTCGTA	14460
TCTTATTTC	ATCTACTATA	ATAAAATGAA	CCAAAAATAG	TACACAATGT	GGTATAATCT	14520
TCTTATGGCA	TATTCAATAG	ATTTTCGTAA	AAAAGTTCTC	TCTTATTGTG	AGCGAACAGG	14580

305

TAGTATAACA GAAGCATCAC ACGTTTTCCTA AATCTCACGT AATACCATTT ATGGCTGGTT	14640
AAAGCTAAAA GAGAAAACAG GAGAGCTAAA CCACCAAGTA AAAGGAACAA AACCAAGAAA	14700
AGTTGATAGA GATAGACTTA AAAACTATCT TACTGACAAT CCAGATGCTT ATTTGACTGA	14760
AATAGCTTCT GACTTTGGCT GTCATCCAAC TACCATCCAC TATGCGCTCA AAGCTATGGG	14820
CTACACTCGA AAAAAAGAAC CACACCTACT ATGAACAAGA CCCAGAAAAA GTAGCCTTAT	14880
TTCTTAAGAA TTTTAATAGT TTAAAGCACC TAGCACCTGT TTAGATTGAC GAAACAGGAT	14940
TCGATACTTA TTTTATCGA GAATATGGTC GCTCATTAAG AGGTCAGTTA ATAAGAGGCA	15000
AAGTATCTGG AAGAAGATAT CAGAGGATTT CTTTGGTTGC AGGTCTAACA AATGGTGAAT	15060
TAATCGCTCC AATGACTTAC GAAGAGACGA TGACGAGCGA CTTTTTGGAA GCTTGGTTTC	15120
AGAAGTTTCT CTTACCAACA TTAACCACAC CATCGGTTAT TATAGTAAAA TGAAATAAGA	15180
ATAGGGGGGG GGGGGGAGGG GGGGGGAGGG AGA	15213

(2) INFORMATION FOR SEQ ID NO: 27:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

TTATTACCTG AAACATTAAA TTTAATTGGA CATCCCGTTA TCAATTTTAT AATATCATCA	60
AGATTTTAT TATCTGATTC AGGAATTTTA TCTGATATAA CAACACCATT TTCAAGATAG	120
TTCAATTAAT TATTTGATTC ACTAACATTA GTGTTTGTAT CTCCATCAAG CAAAAATAA	180
TGTTATTCGG AATCTAAATA CGATGAGTTT AAAATATTAT TACAAATTAT TTGATTGCT	240
CCACCAGGAA TATATCTCAC TACTAAATTC TGTTTAAGAT TCTCACTACC TGAATGAGTG	300
ATAACAACT CTAGAATATA TTTAGCTAGT CTATCTTCAA CATAAATCAT CTTCTAGAA	360
TGATACACAT CACCTAATTC AAAAAATGCA TCCTGATAAT CAATATTTTC AATAACATCT	420
ACCTTTTCTC CGTTTTTCAC TAAAAGTTTC ACGGCTTCTC TAGGAAAATC TTTTATAAGT	480
TGTGTAGAAT GTGTAGTGAT AATAATTGTA TGTTTTTTAT TTAAACACTC TTGAAGTAA	540
AACTCTTTAA ATTTATAGAT TGCACTCGGA TGAAGTGAGA TTTCAGGTTC ATCTATTAAT	600
ATTAATGAAT TTGATTGCGC ATTTACTATA TCATTTACTA ACAAATAAT TCTAGCCTCA	660
CCTGTTCTCG CAAAAGCCTC GGAATATTCT TTTCCAGATT TTTTCATCCA AATAGTTTGT	720

306

GAAGCTTTTA TATCATCACC TTTTGAATAC AACTTATGTG TTAAAATTG AATGTCTGTA	780
TAAGATTCAT CCATTATTTC ACTAATAATT TCACAAACTT TATCATCAAC TTTAACATTA	840
TCTATAACCA TTTCCCTTTT ATAACGCGTA TAGCTACTTG TATTATTCTT TAAAATATCA	900
GCAACTGGCT TAGATCGTAA TCTTATAAAA TCTTGTTTAC TACGTTGAGT AGAAAATTTT	960
TTAAAATTAT AGTGATAGAA AAATAAATCA AAAGCAGAAA CATATTCCTT ACAATCACAA	1020
AAGACAACAT TTTTTCAT GGCATCCCAT CTGTCTGTCG AAGAACTTCC AATATATTTA	1080
TTTTTGCGTA ATCTTCCAT CTCATATTGT TTTTGAGGAG CATATGGTTC CCAATAATCT	1140
AATCCTTTTT TTGTTCCAGA ACGGCCTTTA AGAACTTCTA CATTTCTAGA AGCTTTAATG	1200
TTATAATATG AATAGATTAA ACATTGTTTC CCATCCACTT CATCTATTTG ATCAACATTT	1260
GTACTAAACC AATATTCAGA CACACTTTTA TTGGCTGGAG AACCATATAA AGCTTGTA	1320
ATTGAAGTTT TATTTACTCC ATATCTATTA CAGACACCTC AGGATTATTT AACTTATAAG	1380
TTTTAACAGC TACGGAATCA ATTTCAACAG CAACTTGAAC ATCTATGCCT GATTTTTTAA	1440
GGCCACTTGT AGTGCCACCT GCACCGTTAA ATAAATCAAT AGCAACAATT TTCCCATAG	1500
TATTCTCCTA AAGTTTCTCC TTTTATTAT AACATTATCA AATGTAAAC CCAACCCGAT	1560
AGGGTTAGGT TTTTAAATC ATTTACCAA CTCTTCATC TCATCAATAC GTGCGACGGT	1620
CGCGTCATAT TTAGCTTGGT AGTCAGCTTG TTTGTCGCAT TCTTTTGGTA CGACTTCTGG	1680
TTTGGCGTTG GCTACGAAGC GTTCGTTAGA GAGTTTCTTA CCAACCATGT CCAGTTCTTT	1740
TTGCCATTTA GCAAGTTCCT TGTCGAGACG GGCCAGTTCT TCTTCAACAT TGAGGAGATC	1800
GGCCAGTGGC AGGTAGATTT CTGCTCCTGT GATGACACTT GACATAGCCA GTTCAGGTGC	1860
AGGGATGGTT GATGCGATTT CCAAGTGTTC TGGATTTGTA AAGCGTTTGA TATAGTTGAC	1920
ATTGCTGTTA AAGAAGGCTT CCAAGTCGCT ATCGCTTGTC TTAACAAGGA TGGTGATAGG	1980
CTTGCTTGGT GCTACATTTA CTTCGCACG CGCATTCGTA ACAGCACGAA TCAAGTCTTT	2040
GAGACTTTCC ACACCAAGT GAGCCGCAAG GTCTTCAAAG GCTAGATTAA CAGTTGGGTA	2100
TGCAGCTGTC ACGATAGAAC CTTCAGAGT TTGTCCAAAG ATTTCTCTG TCACGAATGG	2160
CATGATTGGG TGAAGGAGAC GAAGGATCTT GTCCAGCGTA TAGAGGAGAA CAGATCGAGT	2220
AATGACCTTA TCGTCTTCAT TGTCGCTGTA TAGAACTTCC TTGGTCAACT CAACATACCA	2280
GTTGGCAAAT TCTTCCAGA TGAAGTTGTA AAGGATATGA CCAGCCACAC CAAACTCGAA	2340
CTTATCAAAG TTTTCAGTAA CTTTGCAT GGTTCGTTG AGATTGTGGA GAATCCAGCG	2400
GTCCGTCACA TTACCAGCCT CACCTGTTGC AACTTTTGTG ACATTGTCAT GCGCCACATC	2460
CAGCGTCAA CCTTCATTGT TCATGAGGAT ATAGCGAGAA ATGTTCCAAA TTTTGTAAAT	2520

307

AAAGTTCCAT GAAGCATCCA TTTTCTCGTA AGAGAAACGA ACGTCTTGAC CTGGTGCGGA	2580
ACCGTTTGAA AGGAACCAAC GAAGGGCATC AGCACCCTAT TTCTCGATGA CATCCATTGG	2640
GTCAATCCCG TTACCGAGAG ATTTAGACAT CTTGCGTCCT TGCTCGTCAC GGATGAGACC	2700
GTGGATAAGC ACGTTTTGGA ATGGCTGACG ACCAGTAAAT TCCAAGGACT GGAAGATCAT	2760
ACGAGACACC CAGAAGAAGA TGATGTCGTA ACCTGTTACC AAGGTTGAAG TTGGGAAATA	2820
ACGTTTAAAG TCTTCTGAGT CGACTTCAGG CCAGCCCATG GTTGAAAATG GCCAGAGGGC	2880
AGAACTGAAC CAAGTATCCA AGACGTCTTC GTCCTGAGTC CATCCGTCAC CTTCTGGAGC	2940
TTCTTCGCCG ACATACATTT CACCATCAGC ATTGTACCAG GCAGGGATTT GGTGACCCCA	3000
CCAAAGCTGA CGAGAGATAA CCCAGTCGTG GACATTTTCC ATCCATTGAA GGAAGGTATC	3060
GTTGAAACGA GGTGGGTAGA ATTCGACCTT GTCCTCTGTG TCTTGTTAG CAATGGCGTT	3120
CTTAGCCAAT TGGTCCATCT TGACGAACCA TTGAGTAGAC AAGCGTGGCT CAACTACGAC	3180
ACCTGTACGT TCTGAGTGAC CAACACTGTG GACACGTTTT TCGATTTTGA CAAGGGCACC	3240
GATTTCTTCC AACTTAGCAA CGACTGCCTT ACGAGCTTCA AAACGATCCA TGCCTGAAAA	3300
TTCAAAGGCA AGCTCATTCA TAGTTCCGTC GTCGTTTCATG ACGTTGACTT GTGGCAAGTT	3360
ATGACGTTGG CCAACCAAGA AGTCATTGG ATCGTGGGCA GGTGTGATTT TCACGACACC	3420
AGTACCAAGC TCAGGATCTG CGTGCTCATC TCCAACGATT GGGATGAGTT TATTAGCGAT	3480
TGGAAGGATG ACGTTTTTAC CAATCAAGTC CTTGTAGCGC GGGTCTTCTG GATTAACCGC	3540
AACCGCAACG TCCCCAAACA TAGTCTCAGG ACGAGTTGTA GCAACTTCAA GGGCGCGTGA	3600
ACCATCTTCC AGCATGTAAT TCATGTGGTA GAAGGCACCT TCTACATCCT TGTGAATCAC	3660
CTCAATATCA GAAAGGCTG TCGGAGCTGC TGGGTCCCAG TTGATGATAA ACTCACCACG	3720
ATAGATCCAG CCTTTCTTGT AAAGGTTTAC AAAGACCTTA CGAACAGCTT TTGACAAACC	3780
TTCATCAAGA GTGAAACGCT CACGAGAATA GTCTACAGAA AGCCCCATCT TGCCCCATTG	3840
TTCTTGATG GTAGTGGCAT ATTGCTCTTT CCATTCCCAG ACCTTCGTCA AGAAAGACTC	3900
ACGACCTAGG TCATAACGCG TAATACCCTC ACCACGTAAG CGCTCCTCAA CCTTAGCCTG	3960
AGTCGCAATA CCAGCGTGGT CCATACCTGG AAGCCAAAGG GTATCAAAGC CTTGCATGCG	4020
TTTTTGACGG ATGATGATAT CCTGCAAAGT CGTATCCCAA GCGTGACCAA GGTGAAGTTT	4080
CCCAGTTACG TTTGGTGGTG GAATCACGAT TGAATAAGGC TTAGCCTTTT GATCGCCTGA	4140
AGGCTTGAAA ACATCCGCAT CAAGCCATTT TTGGTAACGA CCAGCCTCAA CCTCGGCTGG	4200
ATTGTATTTA GGTGAAAGTT CTTTAGACAT GTGTGTGTCC TTTCTCTATT TTGTTTATTT	4260

308

TATTTTGAAT TTGCTTAGCA GCTTCTTCTG CAGACAAATT CGTATTATTT ATTTTAAAGT	4320
AGTGGTGCAA CTCATTCCGT TGATGTTGGG AATTTAATTG AAGTGTTTCA GCGGTCTCTA	4380
AAATTTCTCT TTCAGATACC TCAATATGTC GTTTTAAGGG TTTGTGCTTT AATCGATTCT	4440
CCGTTTCGATT TCGACGTATG CACTCTTCAA GACTTGTTTC CAATTCAACA AACAGAATCT	4500
CTTGATGAAA GTTATCCAAT AAATCCTGAA TTTGCTTTAA ATACATCAGC TGGTACTGAT	4560
TTGAAAAATC AATTACGTCT GTTAAAATTA CTGATCGCTG ATTTCTTGCA CTTGCTCCAA	4620
GGAAAGAAAA GGTAATTCCA CGAACAAATT CCCACATCTC CTCGGTATAA TCCTGATAGA	4680
TCTCTAGTGC AAAATCAATG GCTTGATGGT TATAAAATAG GGTAGCATCC GTCAGTCGAG	4740
ATAATTCTTG ACCAATGGTC ATTTTTCCTG ATGCTGGAGC ACCAATGATG AAAAGATGCA	4800
TCAAATCACC TCCCCTCAC TCCTCAGCAA GCCATATCTC AAATCATCAC AGCAGTTGCC	4860
TTGAGCATCT TTGCGGTCTC TTATGCGAGC TTCGAGGGTA AAGCCAAGCT TTTCCGAGAC	4920
TCGTTGACTT TGAAGGTAT ATCCAAAGCA AGTTAGTTCA ATCTTGTAAC GACCAAGTTC	4980
TTTAAAAGCT AGATCAATCA AGGAACACGC TGCTTCTGGA ACATAACCTC GACCCCAATA	5040
GTCTGGGTGC AAGGTATAGC CAAGCTCTAG CACATCATCC GCATGAAGAT GGTGAAGTC	5100
AACAGAACCA ATGACTTTAT CGGTTCTTTT GACGACAATC CCATAGCCAG CTGGGAGATT	5160
TTCTTTTGA GTACGCTCCG GAAGAATGTG CTCCAGATAA TAAATCTCAT CTTCCAAGAT	5220
CTTGACTGGA GGAAACCTG CTGGATAGGC GACCTCTGGC AAACAGCGT AGGTATGGAT	5280
ATCCTCAGCA TCCACCACTG TGCGGACTCG TAAACGAGA CGTTCTGTTT CGATTTTATC	5340
TGGCAGCTCA GTTCTTGCCA TCCTTCTTCC TCGCTTTTTT GATGAAACTG CCCTTCATAT	5400
CTACACGCTT GTCCAGATAG CGATAAACGC GCTGATATCC ATCTCCCATG AAATAGGTTG	5460
GGGCAAACAG TTGATTTTAA AAATGTCCCT TTTCATCCAG GAGTCTTGGG GCAACAAGTC	5520
GCTCAAGAAT CTTGGCAAAG ATGTGGCAA TACCGTCTTC CTCAACAATC CTATCTACCC	5580
GACAATCTAA AACAAGTGA CAGGCGTCTA AAATAGGAGT CTGAGTTCGT TCAGAAATTT	5640
CATAATGCAC TCCCAAACGT TCCAATTTCT CCTGATGACT GATAAAACCA GCCTGCTCCA	5700
TCGCAAGCAT AGAAGTTTCA TCAGAAATAT TCACAGTAAA TTTTGTGATAC TGTGTTGATCT	5760
GCTCTGCGGC ATTCTCTCTC GCAACGACTC CAATCACAAC CCAATCTCCT AGACTATAAG	5820
AGGAACTACA GGTCTGATG TTATAGCCAA AATTCTAATC TTGATATCCT AAAATAAAAA	5880
CAGGAAAACC ATAATATAGT TTAATTGTGT TAAAAGATTG CTTCATAACA ACCCCCTTTG	5940
ACTAAGACGT AAAAGAAAAG CCCTGCCATC TACATGACAG GGACGAATGT GTTTATCCGC	6000
GGGG	6004

309

(2) INFORMATION FOR SEQ ID NO: 28:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5857 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

TGTAGAATTC ACGACAATGC TTCGTTGATT TCTGGGTTGA TTTCGTCGCG TTCTGGCAAG	60
CGAGTCAATG AACCAAAAAT AGTACACAAT GTGGTATAAT CCTTTTATGG CATATTCAAT	120
AGATTTTCGT AAAAAAGTTC TCTCTTATTG TGAGCGAACA GGTAAGTATAA CAGAAGCATC	180
ACACGTTTTTC CAAATCTCAC GTAATACCAT TTATGGCTGG TTAAAGCTAA AAGAGAAAAC	240
AGGAGAGCTA AACCACCAAG TAAAAGGAAC AAAACCAAGA AAAGTTGATA GAGATAGACT	300
TAAAAACTAT CTTACTGACA ATCCAGATGC TTATTTGACT GAAATAGCTT CTGACTTTGG	360
CTGTCATCCA ACTACCATCC ACTATGCGCT CAAAGCTATG GGCTACACTC GAAAAAAGAA	420
CCACACCTAC TATGAACAAG ACCCAGAAAA AGTAGCCTTA TTTCTTAAGA ATTTTAATAG	480
TTTAAAGCAC CTAACACCTG TTTAGATTGA CGAAACAGGA TTCGATACTT ATTTTATCG	540
AGAATATGGT CGCTCATTA AAGGTCAGTT AATAAGAGGC AAAGTATCTG GAAGAAGATA	600
TCAGAGGATT TCTTTGGTTG CAGGTCTAAC AAATGGTGAG TTAATCGCTC CAATGACTTA	660
CGAAGAGACG ATGACGAGCG ACTTTTTTGA AGCTTGTTT CAGAAGTTTC TCTTACCAAC	720
ATTAACCACA CCATCGGTTA TTATTATGGA TAATGCAAGA TTCCATAGAA TGGGGAAGCT	780
AGAACTCTTG TGTGAAGAGT TTGGGTATAA ACTTTTACCT CTCCTCCCT ACTCACCTGA	840
GTACAATCCT ATTGAGAAAA CATGGGCTCA TATCAAAAAG CACCTCAAAA AGGTATTACC	900
AAGTTGCAAT ACCTTTTATG AGGCTTTTTT GTCTTGTTCT TGTTC AATT GACTATATAA	960
ATTGTCTAAG CGAAACAACC GATAAGAATT GGCACAAAAG CGACCGTATT TTTGTTACCA	1020
ATACAGGAAA AACAGTTCAT AGTTCTATCT TGAGCAAGTC TCTCCAGCGA GCAAACGAAC	1080
GCCTTAAAAA ACCAATTCCC AAACATCTGT CCCCTCACAT CTTTCAGACAC ACCACTATTA	1140
GCATCTTATC AGAAAATAAA ATTCCTTTAA AAACAATCAC GGACAGGGTT GGTCATCCCG	1200
ACTCTGAAGT CACTACTTCC ATCTACACCC ACGTCACAAA GAACATGAAA GATGAAGCAA	1260
TCAATGTACT GGATAAAGTT ATGAAAAAGA TTTTTTAAAA AGTTTGTGCC CTTTTTGGCC	1320
CTCTAAATAC AAAAAAGGCC CTCGGATAA AATCCGAGGG GCTAGAAACG TTGTTAAATC	1380

310

AACGGCCGAA CTTTGAATT TCATGGTTCG GGATAAAATA GTTCACTGAA CTATTTTATT	1440
TTTAAAGGTT ATCATAATAT CAAATAGTTC AATTAAATAC GCTAAATTAC TAATATACTT	1500
TTTACCTTTT TCATTCTAAA ATGTAAAGTA CAAACAATTA CAATATACTA GAGGGGGAGT	1560
AAAAAAGGTA TTAAATCGAT GAGTTCAGCA GGCAAGAAAA TAGCACCTTT ACGGGTGCTA	1620
TTTTTTAATT AACGCCACGT TAACTTTTGA TTGATGAATT TTATTGTTTG GCACTTCTTT	1680
CATTTACACG TAAACATCGA TGAAATTCTT TCCAACATTA TTTTGGAGT TAACTGCATT	1740
TATTTTGTGA TTAATAACTT TTTTAGTATC GAAAGAATGG TTTAAGAAAT CCATAACTAA	1800
CTCTCCTTTC TCATCCTGTA ATCAAGATTT TTATCAATGT CAAAATAGTA TTTTCTATCA	1860
ATCCAAATTG GTCCTTCTCC TTTAGAAATA GCAAGTACAT CTACCGGACC TCCTACTGTT	1920
TCAAGAGTGT TGACAATTTT TCTCTTAAAT GAAGTTAATT CAATAAATGT TTTAGCTGTA	1980
CTCGCCATTT CATTAAGTGG TTGCATTCCA ATAAGGTCTA TTATAGGATT TATATAATAT	2040
TTTGTCTGTA TAGATGATAT ATTTTCAAAT ATATTCTCAA TTTCATCACC CAATCCATTT	2100
TTCTCCATAA CTGATGATAC TTGCTCTGCG ATATATACAT TTAAGTTAGG ATCTATACCA	2160
TTCATAATCG TCTCAACCAT CTCTGACTGT GCAAAAGGGA TTATATGACA AGTTTATGA	2220
TGATTTATCA CACTTTCATT AATAACTTTC CAAATTAATC GTTTAGAAAA AATCCATAT	2280
AATTC AATTT GTCTTATAGA TGGAAATATC TCGTCTGTAC CATAACCTGC TATAACTAAT	2340
CCAGTTATGT TTGTTGAGTC ATATCCAATG AAAATCGCTT TATATAAAGA TTTAGCAATA	2400
ACTTCAACCT CATCATCAGT ATGAGGAAAG GATTTAAAA CATCGTCTAC AATGCTTTTT	2460
ATTAACCTA ACTCAGCTTC AAAAAATTCA AAATTACTTT CAGCTTCTAC TTTTGAAATT	2520
TCTAAACTAA AATTAGTTAT AGCATTTAAT AAAATTTTAT TAAAATCATC TAGAGTGATG	2580
GTTTCACCAT TAGAACTCT TAAATCAGCT GTTCTTGCG CTCATAGGC AATGCTGTCC	2640
AAAATACTTC TTGTACTTCT GACAATATAA TTTCTTAATA AATCCTCAAC TTGTAGATGT	2700
TTAAAGGAAA TTAAAAATTC TATTAGCTTT TCAACGTATT GGCAGTATT ATCTAATAAA	2760
TCTGTGCCAA TAGCCTGCTT AACTCATTT AAAATTACCT CCCACGGAAT TTCCATAAAC	2820
GAAGCGTCC CATATATCAT GATCCCCACG GAATGTTCTT TTGATAAAGT GAATAATTTT	2880
CGGGCGCTAT TAAAACTTT TGAATTTTTC CCGTCTGATA AGGTTACAGC GCTATCAGAA	2940
GCCAATACAA CACCATTTTT ATTTAATATT CCAATTTCTG CTGTCAAAAT ATCACCTAAA	3000
CTTCTAAAC CTGCTCATGC TCTAATGGTA CAACAGCTAA GGCTTACCA AGACTTGCCA	3060
ACACTTTTAA TACTGTATCA AGTTGTGGGC TTGTCTTCC TGTTCATT CTAGCGATAA	3120
CTGGCTGACT AACACCGCTC ATCTCCTCTA GTTCTTCTG ACTAATACCC TTTTCATTTT	3180

311

TAGCCTCGAT AAGCTCACTC ATGATAGCCA CGCGCATATC ACTTTCCTCTT	3240
TGCTGAATAA TTCAGCTCTT ACATCTTTCC AGTTACTACC AATAGCATTA TTTTTCATTG	3300
TCTAAACCTC TTTCTTTTAA ATCTGCAAGT TCACGTTTAG CTGCTCAAT CTCTCTTTTG	3360
GGTGTTTCTT GTGTCCCTTT CATAAAATGA TGCAGTAAAA CAAACTACC ATCCATCCAA	3420
GCAACAAATA AAATTCATC TCTAAGTGGT CTCAGCTCCC AAATTCAGC ATCTAAATGC	3480
TTAATATATG GTTCGCCTGC GCGTGTTCCTA TGTGCGCTTA ACAACTCAAT ATAATCATTA	3540
ATTTTATTAA GCTTAATCTT GCTATCTTTC CCTTTTCTAC TGGTAAGCTC TCGCATATAA	3600
TCAAAAACAG GCTCATTGCC GTTTTATATC TTGTAAAAAT AGATATTATG CACTATTAAAC	3660
ACCTCTTCCCT AATAACAATT ATAACCTAAA AGTTATTGTT TGTAAATACT TTTAAGTTAT	3720
TAAAATAAAA AGCACCTAGT TTCCTAGATG CTAGCACAAAT GACACGGATT CGCACCGTGG	3780
CTACCTCTAT CAAGGTGTAC TCCTTCTATA CTATCCCTTG TGCTTTAGAA TATTATACCA	3840
CACAATCAAC TAGATACCTA CCATCTCATG ATATACCCCC ATTTTGGGCA AGGGTACAAC	3900
GCTAAAATAC AAATCAGAAT AGATATTAAA CCACCTATTT AACTTATCAT AAGCTGGTGA	3960
TTGACTGATA AATAATATCC GCTGACAAGC TCCGATAACA TTCATGTGAT TGTACACATA	4020
AACCTCTTTT ACAGCCTCTA AAATGTCAGC CTCACCTGTT TGTACCCTAA TATCTGTTAT	4080
CTGCTTGATA GTTGCGTATT TTTGATAAGC TAGCATATCT TGATTTTCTAG CAGCATCAAA	4140
CATTTTACGC TCAAGGACAC TATACTTAGG TTGTTCTTTA TCTCGCATGA AATACCACTT	4200
GAGCCATAAA ATCTTTTCTC GGTGTATTAC AGAAATACGC TCAATTTTCT TCTTTGTCAT	4260
TGCTACCTCC TAAATCATCA ATTTAACAAT TCTAACCCT CACTTTTAGA AATAGTTGCA	4320
TAGATCTTGT TCGATGTATG ATACAAAGGT TCTAAATCTT TTTCCACCCT AATATAGTTC	4380
ATCTTATCCT CATGAGTAGG AAAGTATAGT ATTTCCGTTT CATCCTCGTT TAGGATACGA	4440
TTGCACCAAT CATCAATAAT AACTGGCACT TCCCACTCAC GCCATTTTCT AAGGTTTCTT	4500
AAAAGTTCAT TATCACTAAA TAGCTCGCCA TCTATTTTGA AAAATTCCCC TAAGTCATTG	4560
TTTCCTTCAA CAATAATAAA CTCTGGCATA TTTCTATTAC TTAATAACTC CTTGAGTTCT	4620
TGTAACCTCT TGATTTCTCT TAGATACTTC CTCAATTTC AACCTCAATT CTTCAATCTG	4680
CCTTACTACT CCAAAAATTT CATGGGTCTT ATAAGATTGT TCAAGTATAG CCTTTGCTGC	4740
TTGAGTTCTT ATAAACGGGT TGACCTTACT GTCCATCATA ATATCATTGA GTACAGAAAC	4800
AGCGTTAGAT GATGCTAAAT AAAGCATTTG AGTTGTTTGA TCCATCATCT CATCTTGCTT	4860
TATCCTCAAT GTCTTTTAA CCGCTGCAAC TTTTAGATAC TTATGACCTG TTGCGCGTGA	4920

312

TACCCCTGCT	TTTTGACATG	CTTTGTCTAT	CGTTGGCTCG	GTAAGCATGG	CATCTATGAA	4980
TTTAATTGTC	TTGGACGTAA	GGTTATCATT	TTCATTTTCCT	GCCATCTATT	ACCTCCTCAT	5040
TATCAAAATA	AAGGGTTGCC	CCTTTATTTTC	CCTATGCTAG	ATAATTCTGC	AATTCTGCAT	5100
CCATTGCCTC	TGAATTGCCC	TCAACAATCA	TTTCATGCTG	TACTAAATCA	ATCTTATCTC	5160
CGTTAATAAG	TAAACCACCG	TGGAAATAAT	CAATTTTCT	ATCAAGGAAA	TGTACTAGCT	5220
TTTCAAGGCG	TTGCTGTTGG	CTGAATTGCT	CCATGTCAAT	TTGATATAA	GCAAGGGTAG	5280
TATCATTATC	CATAATATCT	TCTAATTTTC	TAAGAGCTAG	AGGTTTATTT	TTATATTTTT	5340
CTAGGTATTC	TCTCATTTCT	GCCACTGTTA	ATTTGATACT	AGATAATAAA	CTTAGTTCAG	5400
CTGCATCATC	TGCTGTAATA	GGCTCTTCTT	TTGATTCATG	GTTTGCTAGT	TCAGCATTTT	5460
TCTCTTTTTC	TAGTTGCTGA	TACAATAGCT	GAGCAGTATT	TTGGGAATAG	TTTTCGCCCT	5520
CTTTTTTATA	TTTTAAAGT	TCTTGCTCTG	CATACACTTT	CCCGATAATC	ACTTCCTTAT	5580
AAACTAATTG	CCCATCTTGA	GCTTTTAGCT	TAATACTCCC	ATGCTCTGGA	ATTTCAATAT	5640
ACTTAATTAT	ACCATTTTTT	GAGTATAAAA	CAAAGCCTTT	CTCCATCATT	TTTAATAATT	5700
TATCATCCTT	GTTTTTCAGT	ATGCTTTTCT	CCTTTATTTTC	ATTTTATTAT	AATCTGAATA	5760
CCCCTAGTCT	ATTTATTTC	CTAGGTTTTT	AGGGTTCGTA	TGCTAAAATA	CTACCCTTTT	5820
TGTGTACCTT	ATGGCTGACT	TTTCAAATTG	GTTAGTT			5857

(2) INFORMATION FOR SEQ ID NO: 29:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10254 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

AAAATGATAG	CAGGAGAGTT	TTCCCGTCCA	TCAGACCCAG	AACTGAGAGC	CTTAGCTCAG	60
GCTTCTCGCC	AAAAACAGGC	CGCCTTTAAC	AAGGAAGAGA	ACCCCTTGAA	GGGAGCCGAA	120
ATCATCAAGA	CTTGGTTTGC	CTCAACCGGG	AAAAATCTTT	ACATCAACAC	TCGCTTGATG	180
GTGGACTACG	GTGTCAACAT	CCATCTAGGG	GAAAATTTTT	ATTCTAATTG	GAAGTTGACC	240
ATGCTGGATA	TCTGTCCCAT	TCGTATCGGG	GACAATGCTA	TGATTGGTCC	TAATTGTCAG	300
TTTTTTGACAC	CCCTCCATCC	ACTAGATCCA	CAGGAACGCA	ATTCAGGTAT	CGAGTACGGA	360
AAGCCTATCA	CAATCGGAGA	TAATTTCTGG	ACTGGTGGTG	GCGTCATTGT	CCTTCCTGGA	420
GTGACTACTGG	GAAATAATGT	CGTTGCAGGA	GCAGGGGCAG	TAATTACCAA	ATCTTTTGGC	480

313

GACAACGTTG	TCCTAGCTGG	CAATCCTGCG	CGCGTGATTA	AGGAAATACC	TGTTAAATAG	540
AAGTAAAAAG	GAACAGCTGG	GGTTGTTTCT	TTTTTGTAGG	TTTCATCATT	TTTTACCCAG	600
TTCACATTTA	CCTACTCTAT	CTCTTAGCAA	GTCTGTTTCA	TTAAGCAAGT	TCAAAGCATC	660
TCGTAAGTGG	GATGTTTTTC	TCCTCAGTTC	ATCAGCTTCC	TCCTTGACAC	TCGGTCAGAT	720
TTTGATACAA	TAGTACAAAA	TTAGAGGAGG	CAGGCTATGA	TTCAGAAACA	TGCGATTCCCT	780
ATTTTAGAGT	TTGATGACAA	TCCTCAGGCG	GTTATCATGC	CCAATCACGA	GGGGCTGGAC	840
TTGCAGTTGC	CAAAGAAGTG	TGTTTATGCA	TTTTTAGGTG	AGGAGATTGA	CCGCTATGCG	900
AGGGAAGTAG	GGGCGAACTG	TGTTGGCGAA	TTTGTTCCTG	CCACCAAGAC	CTATCCAGTT	960
TATGTCGTGA	ACTACAAGGA	CGAGGAGGTC	TGTCTGGCTC	AGGCTCCTGT	TGGCTCCGCT	1020
CCAGCAGCCC	AGTTTATGGA	TTGGTTGATT	GGCTATGGTG	TGGAGCAGAT	TATCTCTACT	1080
GGGACCTGTG	GTGTCCTAGC	TGATATAGAG	GAAAATGCCT	TTCTAGTCCC	TGTTCCGCGCT	1140
CTGCGAGATG	AAGGAGCCAG	TTACCACTAT	GTGGCACCTT	GTCGTATATAT	GGAAATGCAG	1200
CCAGAGGCTA	TTGCTGCTAT	TGAGGAAGTT	TTGGAAGACA	GAGGGATTCC	TTATGAAGAA	1260
GTCATGACCT	GGACGACAGA	CGGTTTTTAC	CGAGAAACGG	CTGAAAAGGT	GGCTTATCGT	1320
AAGGAAGAAG	GCTGTGCTGT	TGTGGAGATG	GAGTGTCTG	CTCTTGCGGC	AGTAGCTCAA	1380
TTGCGTGGGG	TTCTCTGGGG	TGAATGTTG	TTCACAGCAG	ATTCTCTAGC	GGACTTGGAC	1440
CAGTACGACA	GTCGTGACTG	GGGCTCGGAA	GCTTTTAATA	AGGCGCTAGA	ACTGAGTTTA	1500
GCAAGTGTTT	ACCACCTTTA	GTTGTACTGG	CAAAGGATTT	GTTTTATCAT	AAAATGTCTA	1560
GCTCATACTT	TTCAAAAATA	TGTTTAAACG	AGGTCACCTT	CCTCTTGTC	TAGGCATGTT	1620
GAGGTGGGA	AAAATCTTTA	AAATCAGAAA	AACGTATCAT	ATCAGGTGAT	GAAAACTTTG	1680
ACACTATGCG	TTTTATGTCG	ATAAGATTTA	GAGTGAGATG	AAATGATACT	CTTCGAAAAT	1740
CTCTTCAAAC	CAGGTCAGCT	TCACCTTGCC	GTAGGTATAT	GTTACTGACT	TCGTCAGTCT	1800
TATCCGGCAA	CCTCAAAACG	GTGTTTTGAG	CTGACTTCGT	CAGTTCTATT	TGCAACCTCA	1860
AAACAGTGTT	TTGAGCAACC	TGTGACTAGC	TTTCTAATCG	ATGCCTTGST	TTTCATTGCC	1920
TATAATCAAA	AAGAGAAATT	TTCTCCTGAA	AAGCATATAG	AGTAGCTGGC	GTAAAAAGCT	1980
CCTGTCTTGC	TTTTTTGACC	TATAGTCACA	TCTATCAAGT	ATTGTTCTTG	CCTAAGCTAT	2040
CAATAAAAAG	GTGGCATTTT	TTAGGCTTGG	TGTTAGTAGA	TTTTGCCTTA	TCCTATCTAA	2100
GTCATTTTCG	ACTTTTTATG	GTACAATGGA	AACATGTTAT	TCAAATTATC	TAAGGAAAAA	2160
ATAGAGCTAG	GCTTATCTCG	TTTATCGCCA	GCCCCTCGTA	TTTTTTTGAG	TTTTGCCTTG	2220

314					
GTCATTTTAC	TAGGCTCTCT	TCTTTTGAGC	TTGCCCTTTG	TCCAAGTTGA	AAGCTCACGA 2280
GCGACTTATT	TTGATCATCT	TTTCACTGCT	GTCTCTGCAG	TCTGTGTGAC	GGTCTCTCA 2340
ACCCTTCCAG	TAGCTCACAC	CTATAATATC	TGGGGTCAAA	TAATCTGTTT	GCTCTTGATT 2400
CAGATCGGTG	GTCTAGGGCT	CATGACCTTT	ATTGGGGTTT	TCTATATCCA	GAGCAAGCAA 2460
AAGCTTAGTC	TTCGTAGCCG	TGCAACTATT	CAGGATAGTT	TTAGTTATGG	AGAAACTCGA 2520
TCTTTGAGAA	AGTTTGTCTA	TTCTATTTTT	CTCACGACCT	TTTGTGTTGA	GAGCTTGGGA 2580
GCTATTTTGC	TTAGTTTTTCG	CCTTATTCCT	CAACTTGGCT	GGGGACGTGG	TCTTTTTAGT 2640
TCCATTTTTTC	TAGCGATCTC	AGCCTTCTGT	AATGCCGGTT	TTGATAATTT	AGGGAGCACC 2700
AGTTTATTTG	CTTTTCAGAC	CGATTTACTG	GTCAATCTGG	TGATTGCAGG	CTTGATTATT 2760
ACAGGCGGCC	TTGGTTTTAT	GGTCTGGTTT	GATTTGGCTG	GTCAATGTAGG	AAGAAAGAAA 2820
AAAGGACGTC	TGCACTTTCA	TACGAAGCTT	GTAATATTAT	TGACTATAGG	TTGTTGTTA 2880
TTTGGAACAG	CAACTACTCT	CTTTCTTGAG	TGGAACAATG	CTGGAACGAT	TGGCAATCTC 2940
CCTGTTGCCG	ATAAGGTTTT	AGTTAGCTTT	TTTCAAACAG	TGACGATGCG	AACAGCTGGC 3000
TTTTCTACGA	TAGATTATAC	TCAGGCTCAT	CCTGTGACTC	TTTTGATTTA	TATCTTACAG 3060
ATGTTTCTAG	GTGGGGCACC	TGGAGGAACA	GCTGGGGGAC	TCAAGATTAC	GACATTTTTT 3120
GTCTCTTGG	TCTTTGCACG	AAGTGAGCTT	CTAGGCTTGC	CTCATGCCAA	TGTTGCGAGA 3180
CGAACGATCG	CGCCGCGAAC	GGTTCAAAAA	TCCTTTAGTG	TCTTTATTAT	CTTTTGTATG 3240
AGCTTCTTGA	TAGGATTGAT	TCTGCTAGGG	ATAACAGCCA	AAGGCAATCC	TCCCTTTATC 3300
CACCTCGTAT	TTGAAACCAT	TTCAGCTCTT	AGTACAGTTG	GTGTAACGGC	AAATCTGACT 3360
CCTGACCTTG	GGAAATTGGC	TCTCAGTGTT	ATCATGCCAC	TTATGTTTAT	GGGACGAATT 3420
GGTCCCTTGA	CCTTGTTTGT	TAGCTTGGCA	GATTACCATC	CAGAAAAGAA	AGATATGATT 3480
CACTATATGA	AAGCAGATAT	TAGTATTGGT	TAAGAAAGGA	AAGAGCATGT	CAGATCGTAC 3540
GATTGGAATT	TTGGGCTTGG	GAATTTTGGG	GAGCAGTGTC	CTAGCTGCCC	TAGCCAAGCA 3600
GGATATGAAT	ATTATCGCTA	TTGATGACCA	CGCAGAGCGC	ATCAATCAGT	TTGAGCCAGT 3660
TTTGCCCGGT	GGAGTGATTG	GTGACATCAC	AGATGAAGAA	TTATTGAGAT	CAGCAGGGAT 3720
TGATACCTGC	GATACCGTTG	TAGTCGCGAC	AGGTGAAAAT	CTGGAGTCGA	GTGTGCTTGC 3780
GGTTATGCAC	TGTAAGAGTT	TGGGGGTACC	GACTGTATT	GCTAAGGTCA	AAAGTCAGAC 3840
CGCTAAGAAA	GTGCTAGAAA	AGATTGGAGC	TGACTCGGTT	ATCTCGCCAG	AGTATGAAAT 3900
GGGGCAGTCT	CTAGCACAGA	CCATTCTTTT	CCATAATAGT	GTTGATGTCT	TTCAGTTGGA 3960
TAAAAATGTG	TCTATCGTGG	AGATGAAAAT	TCCTCAGTCT	TGGGCAGGTC	AAAGTCTGAG 4020

315

TAAATTAGAC CTCCGTGGCA AATACAATCT GAATATTTTG GGTTCCTGAG AGCAGGAAAA	4080
TTCCCCATG GATGTTGAAT TTGGACCAGA TGACCTCTTG AAAGCAGATA CCTATATTTT	4140
GGCAGTCATC AACCAACCAGT ATTTGGATAC CCTAGTAGCA TTGAATTCGT AAAGAGGGAT	4200
GACCCCTCTT TTTTGATGCC TAAGATGGCA AATAGAGACA GAAGCCCTT GTCTTCTAGT	4260
AAAAGTTCTT CAAAGGCTGG ACTTTATGGT AAAATAGAAA GAAGTGACAA GAGAGAGTAA	4320
TACTCAATGA AAATCAAAGA TCAAAC TAGG AACTAGCTA CGGGCTGCTC AAAACACTGT	4380
TTTGAGGTG CAGATAGAAC TGACGAAGTC AGTAACATCT ATACGGCAAG GCGACGTTGA	4440
CGCGGTTTGA AGAGATTTTC GAAGAGTATA AGAAAAATC AGTCCCTAA AGGAGTAGAT	4500
TATGAAGTTA TTGTCTATCG CAATTTCTAG CTATAATGCA GCAGCCTATC TTCATTACTG	4560
TGTGGAGTCG CTAGTGATTG GTGGTGAGCA AGTTGGGATT TTGATTATCA ATGACGGGTC	4620
TCAGGATCAG ACTCAGGAAA TCGCTGAGTG TTTAGCTAGC AAGTATCCTA ATATCGTTAG	4680
AGCCATCTAT CAGGAAAATA AATGCCATGG CGGTGCGGTC AATCGTGGCT TGGTAGAGGC	4740
TTCTGGGCGC TATTTTAAAG TAGTTGACAG TGATGACTGG GTGGATCCTC GTGCCTACTT	4800
GAAAATCTT GAAACCTTGC AGGAACTTGA GAGCAAAGGT CAAGAGGTGG ATGTCTTTGT	4860
GACCAATTTT GTCTATGAAA AGGAAGGCA GTCTCGTAAG AAGAGTATGA GTTACGATTC	4920
AGTCTTGCCCT GTTCGGCAGA TTTTGGCTG GGACCAGGTC GGAAATTTCT CCAAAGGCCA	4980
GTATACCATG ATGCACTCGC TGATTTATCG GACAGATTG TTGCGTGCTA GCCAGTTCTA	5040
ACTGCCTGAA CATACTTTTT ATGTCGATAA TCTCTTTGTC TTTACGCCCC TTCAGCAGGT	5100
CAAGACCATG TACTATCTGC CTGTCGATTT CTATCGTTAT TTGATTGGGC GTGAGGACCA	5160
GTCTGTCAAT GAGCAAGTGA TGATTAAGTG CATTGACCAG CAACTCAAG TCAATCGACT	5220
CTTGATAGAC CAACTTGATT TGTCCCAAGT GAGTCATCCC AAAATGCGAG AATATCTGCT	5280
GAATCATATT GAACTCACGA CGGTGATTTT CAGTACCCTG CTCAACCGAT CTGGAACAGC	5340
GGAGCATCTG GCAAAAAAAC GCCAATTGTG GACCTATATT CAGCAGAAAA ATCCAGAAGT	5400
CTTTCAGGCT ATTCGTAAGA CCATGTTGAG CCGTTTGACC AAACATTCTG TCTTGCCAGA	5460
TCGCAAACTG TCCAATGTCG TCTATCAAAAT CACCAAATCT GTTTATGGAT TTAATTAATA	5520
TAAGTGTTTT ATAAGAGGGA TTAAAGAAAA ATTTTAACTT TTTCTTAGTC CTTTTTAATT	5580
TCAGGAGATT AACTAGAGT CATCAAATAA AGAAAGACTC TAAGGAGAAT CCTATGAAAT	5640
TCAATCCAAA TCAAAGATAT ACTCGTTGGT CTATTCGCCG TCTCAGTGTC GGTGTTGCCT	5700
CAGTTGTTGT GGCTAGTGGC TTCTTTGTCC TAGTTGGTCA GCCAAGTTCT GTACGTGCCG	5760

316

ATGGGCTCAA	TCCAACCCCA	GGTCAAGTCT	TACCTGAAGA	GACATCGGGA	ACGAAAGAGG	5820
GTGACTTATC	AGAAAAACCA	GGAGACACCG	TTCTCACTCA	AGCGAAACCT	GAGGGCGTTA	5880
CTGGAAATAC	GAATTCACTT	CCGACACCTA	CAGAAAGAAC	TGAAGTGAGC	GAGGAAACAA	5940
GCCCTTCTAG	TCTGGATACA	CTTTTGTAAA	AAGATGAAGA	AGCTCAAAAA	AATCCAGAGC	6000
TAACAGATGT	CTTAAAAGAA	ACTGTAGATA	CAGCTGATGT	GGATGGGACA	CAAGCAAGTC	6060
CAGCAGAAAC	TACTCCTGAA	CAAGTAAAAG	GTGGAGTGAA	AGAAAATACA	AAAGACAGCA	6120
TCGATGTTCC	TGCTGCTTAT	CTTGAAAAAG	CTGAAGGGAA	AGGTCCTTTC	ACTGCCGGTG	6180
TAAACCAAGT	AATTCCTTAT	GAAGTATTCG	CTGGTGATGG	TATGTAAACT	CGTCTATTAC	6240
TAAAAGCTTC	GGATAATGCT	CCTTGGTCTG	ACAATGGTAC	TGCTAAAAAT	CCTGCTTTAC	6300
CTCCTCTTGA	AGGATTAACA	AAAGGGAAAT	ACTTCTATGA	AGTAGACTTA	AATGGCAATA	6360
CTGTTGGTAA	ACAAGGTCAA	GCTTTAATTG	ATCAACTTCG	CGCTAATGGT	ACTCAAACCTT	6420
ATAAAGCTAC	TGTTAAAGTT	TACGGAAATA	AAGACGGTAA	AGCTGACTTG	ACTAATCTAG	6480
TTGCTACTAA	AAATGTAGAC	ATCAACATCA	ATGGATTAGT	TGCTAAAGAA	ACAGTTCAAA	6540
AAGCCGTTGC	AGACAACGTT	AAAGACAGTA	TCGATGTTCC	AGCAGCCTAC	CTAGAAAAAG	6600
CCAAGGGTGA	AGGTCCATTC	ACAGCAGGTG	TCAACCATGT	GATTCCATAC	GAAGTCTTCG	6660
CAGGTGATGG	CATGTTGACT	CGTCTCTTGC	TCAAGGCATC	TGACAAGGCA	CCATGGTCAG	6720
ATAACGGCGA	CGCTAAAAAC	CCAGCCCTAT	CTCCACTAGG	CGAAAACGTG	AAGACCAAAG	6780
GTCAATACTT	CTATCAAGTA	GCCTTGGACG	GAAATGTAGC	TGGCAAAGAA	AAACAAGCGC	6840
TCATTGACCA	GTTCAGGCA	AAyGGTACTC	AAACTTACAG	CGCTACAGTC	AATGTCCTATG	6900
GTAACAAAGA	CGGTAAACCA	GACTTGGACA	ACATCGTAGC	AACTAAAAAA	GTCAGTATTA	6960
ACATAAACGG	TTTAATTTCT	AAAGAAACAG	TTCAAAAAGC	CGTTGCAGAC	AACGTTAAAG	7020
ACAGTATCGA	TGTTCCAGCA	GCCTACCTAG	AAAAAGCCAA	GGGTGAAGGT	CCATTACAG	7080
CAGGTGTCAA	CCATGTGATT	CCATACGAAC	TCTTCGCAGG	TGATGGTATG	TTGACTCGTC	7140
TCTTGCTCAA	GGCATCTGAC	AAGGCACCAT	GGTCAGATAA	CGGTGACGCT	AAAAACCCAG	7200
CCCTATCTCC	ACTAGGTGAA	AACGTGAAGA	CCAAAGGTCA	ATACTTCTAT	CAATTAGCCT	7260
TGGACGGAAG	TGTAGCTGGC	AAAGAAAAAC	AAGCGCTCAT	TGACCAGTTC	CGAGCAAACG	7320
GTACTCAAAC	TTACAGCGCT	ACAGTCAATG	TCTATGGTAA	CAAAGACGGT	AAACCAGACT	7380
TGGACAACAT	CGTAGCAACT	AAAAAAGTCA	CTATTAACAT	AAACGGTTTA	ATTTCTAAAG	7440
AAACAGTTCA	AAAAGCCGTT	GCAGACAACG	TTAAGGACAG	TATCGATGTT	CCAGCAGCCT	7500
ACCTAGAAAA	GGCCAAGGGT	GAAGGTCCAT	TCACAGCAGG	TGTCAACCAT	GTGATTCCAT	7560

317

ACGAACTCTT	CGCAGGTGAT	GGCATGTTGA	CTCGTCTCTT	GCTCAAGGCA	TCTGACAAGG	7620
CACCATGGTC	AGATAACGGC	GACGCTAAAA	ACCCAGCTCT	ATCTCCACTA	GGTGAAAACG	7680
TGAAGACCAA	AGGTCAATAC	TTCTATCAAG	TAGCCTTGGA	CGGAAATGTA	GCTGGCAAAG	7740
AAAAACAAGC	GCTCATTGAC	CAGTTCCGAG	CAAACGGTAC	TCAAACCTAC	AGCGCTACAG	7800
TCAATGTCTA	TGGTAACAAA	GACGGTAAAC	CAGACTTGGA	CAACATCGTA	GCAACTAAAA	7860
AAGTCACTAT	TAAGATAAAT	GTTAAAGAAA	CATCAGACAC	AGCAAATGGT	TCATTATCAC	7920
CTTCTAACTC	TGGTTCTGGC	GTGACTCCGA	TGAATCACAA	TCATGCTACA	GGTACTACAG	7980
ATAGCATGCC	TGCTGACACC	ATGACAAGTT	CTACCAACAC	GATGGCAGGT	GAAAACATGG	8040
CTGCTTCTGC	TAACAAGATG	TCTGATACGA	TGATGTCAGA	GGATAAAGCT	ATGCTACCAA	8100
ATACTGGTGA	GACTCAAACA	TCAATGGCAA	GTATTGGTTT	CCTTGGGCTT	GCGCTTGACG	8160
GTTTACTCGG	TGGTCTAGGT	TTGAAAAACA	AAAAAGAAGA	AAACTAATCA	GCTAAGGAAA	8220
TAAATGATGG	ATAGTGGGCT	GACTAAGATT	AGTTTAACAA	CTCAATCAGC	AATCAGGACT	8280
TTCTTTCAAT	AGCAGATTAA	AATCATCGTA	AAACAATAAA	AATAGTGTTA	TACTTAAAGC	8340
AGTATAGCAC	TGTTTTTATC	AAAGGAGAGA	CAGATGGGAA	AGACAATTTT	ACTCGTTGAC	8400
GACGAGGTAG	AAATCACAGA	TATTCATCAG	AGATACTTAA	TTCAGGCAGG	TTATCAGGTC	8460
TTGGTAGCCC	ATGATGGACT	GGAAGCGCTA	GAGCTGTTCA	AGAAAAAACC	GATTGATTTG	8520
ATTATCACAG	ATGTCATGAT	GCCTCGGATG	GATGGTTATG	ATTTAATCAG	TGAGGTTCAA	8580
TACTTATCAC	CAGAGCAGCC	TTTCCTATTT	ATTACTGCTA	AGACCAGTGA	ACAGGACAAG	8640
ATTTACGGCC	TGAGCTTGGG	AGCAGATGAT	TTTATTGCTA	AGCCTTTTAG	CCCACGTGAG	8700
CTGGTTTTGC	GTGTCCACAA	TATTTTGCGC	CGCCTTCATC	GTGGGGGCGA	AACAGAGCTG	8760
ATTTCCCTTG	GCAATCTAAA	AATGAATCAT	AGTAGTCATG	AAGTTCAAAT	AGGAGAAGAA	8820
ATGCTGGATT	TAAC TGTTAA	ATCATTTGAA	TTGCTGTGGA	TTTTAGCTAG	TAATCCAGAG	8880
CGAGTTTTCT	CCAAGACAGA	CCTCTATGAA	AAGATCTGGA	AAGAAGACTA	CGTGGATGAC	8940
ACCAATACCT	TGAATGTGCA	TATCCATGCT	CTTCGACAGG	AGCTGGCAAA	ATATAGTAGT	9000
GACCAAACCT	CCACTATTAA	GACAGTTTGG	GGGTTGGGAT	ATAAGATAGA	GAAACCGAGA	9060
GGACAAACAT	GAAACTAAAA	AGTTATATTT	TGGTTGGATA	TATTATTTCA	ACCCTCTTAA	9120
CCATTTTGGT	TGTTTTTTTG	GCTGTTCAAA	AAATGCTGAT	TGCGAAAGGC	GAGATTTACT	9180
TTTTGCTTGG	GATGACCATC	GTTGCCAGCC	TTGTCGGTGC	TGGGATTAGT	CTCTTTCTCC	9240
TATTGCCAGT	CTTTACGTCG	TTGGGCAAAC	TCAAGGAGCA	TGCCAAGCGG	GTAGCGGCCA	9300

318

AGGATTTTCC TTCAAATTG GAGGTTCAAG GTCCTGTAGA ATTCAGCAA TTAGGGCAAA	9360
CTTTTAATGA GATGTCCCAT GATTTCAGG TAAGCTTTGA TTCCTTGGA GAAAGCGAAC	9420
GAGAAAAGGG CTTGATGATT GCCCAGTTGT CGCATGATAT TAAGACTCCT ATCACTTCGA	9480
TCCAAGCGAC GGTAAGGG ATTTTGGATG GGATTATCAA GGAGTCGGAG CAAGCTCATT	9540
ATCTAGCAAC CATTTGGACGC CAGACGGAGA GGCTCAATAA ACTGGTTGAG GAGTTGAATT	9600
TTTTGACCCT AAACACAGCT AGAAATCAGG TGGAACTAC CAGTAAAGAC AGTATTTTTC	9660
TGGACAAGCT CTTAATTGAG TGCATGAGTG AATTCAGTT TTTGATTGAG CAGGAGAGAA	9720
GAGATGTCCA CTTGCAGGTA ATCCCAGAGT CTGCCCAGAT TGAGGGAGAT TATGCTAAGC	9780
TTTCTCGTAT CTTGGTGAAT CTGGTCGATA ACGCTTTTAA ATATTCTGCT CCAGGAACCA	9840
AGCTGGAAGT GGTGGCTAAG CTGGAGAAGG ACCAGCTTTC AATCAGTGTG ACCGATGAAG	9900
GGCAGGGTAT TGCCCCAGAG GATTTGGAAA ATATTTTCAA ACGCCTTTAT CGTGTCGAAA	9960
CTTCGCGTAA CATGAAGACA GGTGGTCATG GATTAGGACT TGCGATTGCG CGTGAATTGG	10020
CCCATCAATT GGGTGGGGAA ATCACAGTCA GCAGCCAGTA CGGTCTAGGA AGTACCTTTA	10080
CCCTCGTTCT CAACCTCTCT GGTAGTGAAA ATAAAGCCTA AAACCCCTTT ACAAATCCAG	10140
CTATTCATGG TAGAATAGAT TTTGTGTGAA ATATCAGCAG GAAAGCATGA AGCTCGTCAA	10200
CAGGTGTCTT ATGACAAGTA ACCTTGCTG TTTAGGCGAA GGGCATCTGC ACGG	10254

(2) INFORMATION FOR SEQ ID NO: 30:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9769 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CCGGCGACTA TCGATAACAC TTGACTTGGT AGCCCCACAT TTTGGACAAC GCATCCTTTC	60
CCTCCTTATC GTTTTCTTTT CATTATACCA TTTTAAAGC GATTCCCAA ACAATTCTTC	120
TTTTTGCTTG ACAAGTTTTT TGTTTTGTTG TATTATTTAA TTAAGACAAC AAGGTAAAAG	180
AAAGGAGACT AAGATGTCCT GGACATTTGA CAACAAAAA CCCATCTATT TACAGATTAT	240
GGAGAAAATC AAGCTTCAGA TTGTTTCCCA TACTTGGA CCAATCAAC AACTTCCAAC	300
CGTGAGGAGC TAGCTAGCGA GGCTGGTGTC AATCCCAATA CCATCCAAAG AGCCTTATCA	360
GACCTTGAAC GAGAAGGATT TGTCTACAGC AAGCGAACA CTGGACGATT TGTGACTAAG	420
GATAAGGAGC TAATCGCCCA GTCACGCAA CAATTATCAG AAGAAGAATT GGAACACTTC	480

319

GTTTCCTCCA	TGACCCATTT	TGGCTATGAA	AAAGAAGAAC	TACCAGGCGT	AGTCAGTGAT	540
TATATTAAAG	GAGTTTAAGC	CTATGTCATT	ACTAGTATTT	GAAAATGTAT	CCAAATCATA	600
TGGAGCAACA	CCAGCCCTTG	AAAATGTTTC	TCTTGACATT	CCAGCTGGAA	AAATTGTCGG	660
CCTTCTTGGG	CCAAACGGCT	CAGGAAAAAC	AACCCTGATT	AAACTAATTA	ATGGCCTCTT	720
ACAACCAGAT	CAAGGACGTG	TCCTCATCAA	CGACATGGAC	CCAAGCCCAG	CAACCAAGGC	780
CGTTGTAGCT	TATTTGCCTG	ATACGACCTA	TCTCAATGAG	CAAATGAAGG	TCAAAGAAGC	840
CCTAACCTAC	TTCAAGACCT	TCTATAAAGA	TTGTCAGATC	TTGAACGCGC	CCATCATCTA	900
CTTGACAGAC	TGGGCATTGA	TGAAAATAGT	CGTCTCAAGA	AACTATCAAA	AGGAAACAAA	960
GAAAAGGTTT	AACTGATTTT	GGTTATGAGC	CGTGATGCTC	GTCTCTATGT	TTTGGACGAA	1020
CCCATTGGTG	GGGTGGATCC	AGCAGCCCGT	GCTTATATCC	TCAATACCAT	TATCAACAAC	1080
TACTCACCAA	CTTCTACCGT	TTTGATTTCCT	ACCCACTTGA	TTTCTGATAT	CGAGCCAATC	1140
TTGGATGAAA	TTGTCTTCCT	AAAAGACGGA	AAAGTCGTCC	GTCAAGGAAA	TGTAGATGAT	1200
ATTTCGTACG	AGTCAGGTGA	ATCCATTGAC	CAACTCTTCC	GTCAGaATTT	AAGGCCTAAG	1260
CAAAGGAGAT	TATTTATGTT	TTGGAATTTA	GTTTCGCTACG	AATTTAAAAA	TGTTAACAAG	1320
TGGTATTTTAG	CCCTCTACGC	AGCCGTGCTA	GTCCCTTCTG	CCCTCATCGG	AATACAGACA	1380
CAAGGCTTTA	AAAATCTACC	TTACCAAGAA	AGTCAGGCTA	CTATGCTACT	TTTTCTAGCT	1440
ACAGTCTTTG	GTGGCTTGAT	GCTTACACTT	GGGATTTCAA	CCATTTTCTT	GATTATTAAA	1500
CGCTTCAAAG	GTAGTGCTA	CGACCGACAA	GGCTATCTGA	CTTTGACCTT	GCCAGTTTCT	1560
GAACACCATA	TCATCACAGC	CAAACCTAATC	GGTGCCTTTA	TCTGGTCATT	GATTAGCACC	1620
GCTGTATTGG	CTCTAAGTGC	TGTTATTATT	CTGGCTTTAA	CAGCTCCAGA	ATGGATTCCCT	1680
CTTTCTTATG	TGATTACATT	TGTAGAAACA	CATCTCCCTC	AGATCTTTCT	TACAGGTATA	1740
TCCTTCCTAC	TAAATACTAT	TTCAGGAATC	CTCTGCATCT	ACCTGGCTAT	TTCCATTGGA	1800
CAGCTTTTCA	ATGAATACCG	TACAGCACTC	GCTGTTGCAG	TCTACATTGG	TATCCAAATC	1860
GTCATTGGAT	TTATTGAACCT	TTTCTTCAAT	CTTAGTTCTA	ATTTCTATGT	CAATTCACTG	1920
GTAGGACTCA	ATGACCATTT	CTATATGGGA	GCAGGTATAG	CCATTGTGTA	AGAACTCATA	1980
TTCATAGCTA	TCTTTTATCT	CGGAACCTAC	TACATCTTGA	GAAATAAGGT	TAATTTGCTT	2040
TAAATAATTT	TTACCTAGAT	ATGTAACATA	CTCATAGAAC	AAAAGAGACC	AGGCAAAAAG	2100
TCTTTAAAAAT	TAGAAAACGC	ATAGTATCAG	GTGTTGAATA	TGTACTGCcC	CCCAAAAGTT	2160
AGATTTTTTC	TGTCTAACTT	TTGGGGGCAG	TTCATAAGAA	CCTTGGAAT	ATGCGTTTTT	2220

320					
TGTGAGCTGA	CTTATTTTCCT	TTCACATATAT	CGCAAAATGA	AATAAGAACG	GAACGATGGG 2280
ATTTTGGAAT	TCAAATCAAT	TTATAAGAAT	GTTTTAGAAG	TAATATTATC	CTATTCCAGA 2340
TTCAGTTCAC	TATACAATTG	AGTTTTCAAG	CAACCTGTTT	ACATAATGTG	TACATAATTA 2400
GGTTCGTGAT	TCCACCCTTT	TCACCTTTAA	AAACCTCGCT	TTCGCAAGGC	TCTTCTATTT 2460
ATAAGATAAG	GCACGTTTAA	AGGTTTTCCA	AATCCCTAAA	TCATCCGTTT	GAAGAACGAG 2520
ACTAGCATAC	ATGCGTCCGA	TAAATCCTGT	TGCTACCACC	GCAAAAATCA	CTGTAATAGC 2580
AAGTGAAATC	CATGCTTCTG	CTCCCCCGC	ATAGTCATTA	ATCGTTCGAA	ACGGCATAAA 2640
GAAGGTCGAA	ATAAAGGGAA	TATAAGAACC	AATCTTCAAG	AGGAGATTGT	CACCAGCTGC 2700
ACCTAGAGCT	GTCACCTCAA	AAAAACCACC	CATAATCAAA	ATCATCAAAG	GCGACAAGGC 2760
TTTCCCTGAG	TCCTCAGGAC	GAGAAACCAT	AGATCCTAGG	AAGGCTGCCA	AGACTACGTA 2820
CATGAAAAGA	CTGATCAAAA	TAAAGAGCAA	GGTATTCAGT	GAGATAGCAT	CTCCCAAGTG 2880
ATCCAAAATA	CCAGACTGAG	CCAAGAATGG	CAAATCTTTA	AAGAGCAAAA	CGGCAGCCAG 2940
ACCACCTACA	ACATAGATCC	CAATATGCGT	TAAAATCACT	AGAAACAGAG	CCATCATCCG 3000
CGCATAGAAA	TAGTGACTTG	CCCTTATGCT	AGAAAAACG	ACTTCCATAA	TTTTGGTGCC 3060
TTTTTCACTG	GCAACTTCCT	GAGCTGTTAC	ACCCGCATAG	GTAATCAGAA	TCATATAAAG 3120
AAAGAATCCT	AAGGCACCTG	CTGCAATTGT	TTGAATAAAC	TTTTTATTTT	CCTTGGCTTC 3180
ATCAATCTTT	TCTGTGAATT	GAATGTCTG	CGCTAAGCGT	TTTTCCTGCT	CTTGAGACAA 3240
GGAAGCAGTT	GAACGATTAA	GCTGATTTTG	CAGTTCATTG	AGTGACCTG	TAACCTCAAA 3300
TTTAATTCCA	TTTTCAAGCG	ATGTTTCGCC	ATGATAAACT	GCCTTTAGAA	CACTATCTTC 3360
TTGATCAATG	GTCAAATAAC	CTTTTAATTT	TTCTTCTTTA	ATTGCTTCTT	TGGCACTTGC 3420
TTCGTCTTTA	TAGTCGAAGT	TAACACCATT	TACATTCTTC	AGTCCTTCTG	CTACAGATGG 3480
CACTGTGTGC	ACTACTGCCA	CTTTATTATT	TTTAGCCATA	GAAGAACCTT	GGAGATGCCC 3540
AATTCCTACA	GAGATTCCTA	AAAAGAGGAA	CGGCGAAATC	ACCATAAAGA	AGAACTCCA 3600
TGACTCGACA	TGTCGAAGAT	AGGTTTCCTT	GATTACAACC	CACATATTTT	TCATACTTCC 3660
ACTCCTGATT	CTAGTTTAAA	GATTTTCATCG	ATAGTTGGCG	CTTGTTGGTC	AAATGTTGCG 3720
ATATATTGAC	CTTGAGTCAA	GATTGAGAAG	AGTTCCTTTC	CAGCGCTCTC	ATCCTCCAAA 3780
ATCAATTTCC	AACTGCCTTG	TTTGGTCAAG	CTCACCTGTT	TGACATGAGG	AAGATTTTCC 3840
AATTCCTCCT	TGCTTCGTTT	ACTTGAAACA	AAGAGACGCG	TTTTCCCGTA	TTGATTGCGG 3900
ACATCCTGAA	CTGGTCCGTG	CAAGACCACA	CGGCCATCTC	GGATCATCAG	AATATCGTCA 3960
CAAAGTTCCT	CAACATTGGT	CATGACATGG	TCAGAAAAGA	TAATGGTTGT	CCGCGCTCTT 4020

321

TTTCCTGAAA	AATGACTTGT	TTGAGCAATT	CTGTATTAAC	TGGGTCCAAT	CCACTAAAAG	4080
GCTCATCCAA	GATAATCAGG	TCTGGTTCAT	GAATCAGAGT	AATAATGAGC	TGAATCTTCT	4140
GCTGATTTC	TTTTGACAGA	CTCTTGATTT	TATCTGTCAG	CTTTCCTTTC	ACTTCCAACC	4200
TCTTCATCCA	TTGAGGGAGT	TTTCTTTTGA	CTTCTTTGGC	ATCCATGCCT	TTTAGAGTCG	4260
CCAAGTAGCG	AAC TTGTTCA	AGAACTGTCA	ATTTAGGCAT	GAGATGCGTT	CTTCAGGCAG	4320
ATAACCAATC	CGAGCATAGG	TCTCCTGACG	AATATCCTGA	CCATCCAGAC	CGATTCTCTC	4380
CTGATATTCT	AGGAATTTCA	AAATACTATG	GAAAATCGTT	GTTTTTCCAG	CACCATTTTT	4440
TCCGACTAGT	CCCAAAATAC	GACCTGGTCG	CGCTTGAAAG	TCAATACCAA	ACAAAACCTG	4500
CTTGGATCCA	AAACTTTTCT	CTAGACTTCT	TACTTCTAGC	ATCTTTCACC	TCCGAAATTT	4560
CTTGCACTCA	TTATACTCCT	TTTTGATAGC	CTTTACAATG	TTTTTTGTCC	ATTTTTTAGAA	4620
GACTATTGCT	GTGTAATA	TGGCCTGGAG	CAC TTTTATA	CTCAATGAAA	ATCAAAGAGC	4680
AAACTAGGAA	GCTAGCCGTA	GACTGCTCAA	AGTACAGCTT	TGAGGTTGCA	GATAAACTG	4740
ACGAAGTCgA	CTCAAAACAC	TGTTTTGAGG	TTGTGGATAG	AACTGACGAA	kCrTAaCTAT	4800
ATCTACGGCA	AGGCGAAcTG	ACGTGGTTTG	AAGAGATTTT	CGAAGAGTAT	TAGTGATAAA	4860
TCCATTATAC	AGCAGCAAAC	TTAATTTATA	CCTTCCGCTC	CTCAACTGTC	TATTTTTTAAT	4920
CCTGAATTGT	TATTTGAGTA	ACTCCTTTTT	CCTCGTAAAG	TTTTCTTCCT	CTAAAAC TTC	4980
TGGAAAAAGG	CTAATAGTTT	CAGACAACAT	TTTTATAAGA	AACAAGTCA	TCTGTCATTT	5040
CAAGAAGGAG	TAATCCTTTA	TCTACTAATG	GACGGAACAG	AATTCAACCG	CTGTGCCGAT	5100
ATGTTTTCTA	AGGATTATAT	AGTAAAATGA	AATAAGAACA	GGACAAATTG	ATCAGGACAG	5160
TCAAATTGAT	TTCTAACAAT	GTTTTAGAAG	TAGATGTATA	CTATTCTAGT	TTCAATCTGC	5220
TATATCTATT	ATGCACACCC	CTATAGGATC	TAATGAAAAT	CACAACAGGC	TCATTCTATAG	5280
ATGGTTACCT	AAGCCTAAGG	GAACTAAGAA	AACGACTACC	AAGGAAGTCG	CATTCTATCGA	5340
AAAGTAGATT	AACAACATATC	CTAAAAAATG	CTTGAAC TAC	AAGTCCCCCA	GAGAAGACTT	5400
CTGGATGACT	AACTTGAACT	TGAAATTTAG	CAATAATTAA	TTCACTATCT	AACTATATTT	5460
AGTAATTATT	TCAGAACTGA	TTAATATTAA	AATTAAC TAA	CAATTCAAAG	GATTCTACT	5520
AGCCATAAAT	TACGTCCATC	AGAGAGAGAC	TCTTACTACT	TTTAGATTTT	AGTCTTTCTA	5580
GCTTCAGAAT	ACATCTAAAC	TTTAGGGAAA	ATGACTATTC	GAAAGCGCGA	ATGCCTCAAA	5640
ATTATCTCAG	ATAAGCTATT	CGAAACTTAG	AATGCTTTTA	AATTTATGGA	ATTGCGATTA	5700
TTCGAAACCT	AGAATGCATA	TAACCTTTAG	TTGACAGACC	TATTCTAAGT	CTCGAAGGGC	5760

322

TATTTACTTT	CTATTCCTTA	TCAAAAAGA	CTCATTCCCC	CTTCTCCTC	CAAAATATGG	5820
TATAGTAGAA	ATATACTATC	TATGAGGAGT	TTACATGTCA	CAGGATAAAC	AAATGAAAGC	5880
TGTTTCTCCC	CTTCTGCAGC	GAGTTATCAA	TATCTCATCG	ATTGTCGGTG	GGGTGGGAG	5940
TTTGATTTTC	TGTATTTGGG	CTTATCAGGC	TGGGATTTTA	CAATCCAAGG	AAACCCCTCTC	6000
TGCCTTTATC	CAGCAGGCAG	GCATCTGGGG	TCCACCTCTC	TTTATCTTTT	TACAGATTTT	6060
ACAGACTGTC	GTCCCTATCA	TTCCAGGGGC	CTTGACCTCG	GTGGCTGGGG	TCTTTATCTA	6120
CGGGCACATC	ATCGGGACTA	TCTACAATA	TATCGGCATC	GTGATTGGCT	GTGCCATTAT	6180
CTTTTATCTA	GTGCGCCTAT	ACGGAGCTGC	CTTTGTCCAG	TCTGTCTGCA	GCAAGCGCAC	6240
CTACGACAAG	TACATCGACT	GGCTAGATAA	GGCAATCGT	TTTGACCGCT	TCTTTATTTT	6300
TATGATGATT	TGGCCCATTA	GCCAGCTGA	CTTCTCTGT	ATGCTGGCTG	CCCTGACCAA	6360
GATGAGCTTC	AAGCGCTACA	TGACCATCAT	CATTCTGACC	AAACCCTTTA	CCCTCGTGCT	6420
TTATACCTAC	GGTCTGACCT	ATATTATTGA	CTTTTCTTGG	CAAATGCTTT	GACACGTAAA	6480
AAATCCGTTT	GGTTTCCCAA	GTGGATTTT	AAAGCGTAGA	TTAACTATAG	CTTGATACTA	6540
AATATACTTT	GGTATGAAA	TCATGCATAT	TTTTCGATAG	TGAGGCGAGG	ACTTACCTAG	6600
CCTTTCCGCC	GTGATAGAAA	CACCTGAAAT	CTAATGGTTT	CAGGTATTCG	GAAACTTTGA	6660
GCCTAGTGTC	TCAAAGTTTA	GGTATGGAAT	TTTGAAGAAA	GTCGCTACCG	TCCGTAATCA	6720
CTTAAGGAAA	GGCTCAAAAA	TATTGTTTTT	AACCACAAAA	TCCGTTTGGT	TTCCCAAGCG	6780
GATTTTGTGC	TTTATTTTGA	AACTTCTTTT	GCAAGAACAA	AGTTCCCAAG	TGTGGCAGAA	6840
CCATTTCTTG	CGACTGCTGG	CGTCACGATA	TAGTCACGCA	CATCTGGTAC	TGGTAGGTAA	6900
CCATTAAGAA	GAGATGTAAA	TTTCTCACGG	ACACGGTCCA	GCATATGTTG	TTGAGCCATG	6960
ACCCCTCCAC	CAAAGACAAT	CACGTCTGGG	CGGAAAGTCA	CTGTCGCATT	AACCGCAGCT	7020
TGAGCGATAT	AGTAGGCTTG	AACATCCCAA	ACAGGGTTGT	TGAGTTCAAT	AGTTTCCCA	7080
CGTACACCTG	TACGAGCTTC	CAAACCTGGA	CCAGCTGCAT	AACCTTCTAG	ACATCCCTTA	7140
TGGAAAGGAC	AAACACCCTT	AAACTCTTTT	TCAATATCCA	TTGGGTGTCT	AGCAACATAA	7200
TAATGACCCA	TTTCAGGGTG	ACCCACACCA	CCGATAAACT	CACCACGTTG	GATGACGCCT	7260
GCACCGATAC	CTGTACCGAT	TGTGTAGTAA	ACCAAGTTT	CGATACGACC	ACCAGCATTG	7320
TTACGGGCAA	CCATTTACAC	GTAAGCAGAG	CTGTTTACGT	CTGTTGTGAA	GTACATTGGC	7380
ACGTTTAGGG	CGCGACGAAG	GGCACCAAGC	AAGTCTACAT	TTGCCAGTT	TGGTTTTGGA	7440
GTCGTCGTGA	TAAAGCCATA	AGTTTTTGAG	TTTTTGTCAA	TATCAATCGG	CCCAAATGAA	7500
CCAACTGCAA	GACCAGCAAG	GTTATCGAAT	TTTGAGAAGA	ACTCAATGGT	TTTATCGATT	7560

323

GTTTCGATTG	GAGTTGTTGT	TGGAAATTGT	GTTTTTCTA	CAACGTAAA	GTTTTCATCA	7620
CCGACAGCAC	AGACAACTT	TGTACCGCCC	GCTTCCAAGC	TTCCATATA	TTTTGTCTG	7680
ATAAACCTCT	TGTTTTTATT	TTCTTTATTA	TAGCATACTT	CGAAAGTCTA	AATGTCTCTA	7740
TTTTTTAGAT	TTTCCTCTGT	AAATCTTACT	ATCTAATAAA	AACGAACAAA	CATGTCTATT	7800
GTTTCGTTTC	ACATTAGAGA	GGATTGATTA	GATTTTCACT	TCGATCACAG	CATCCCCCTT	7860
AGCAACTGAA	CCTGTTGCGA	CTGGAGCTAC	TGAAGCGTAG	TCACCTGTAT	TTGTAACGAT	7920
AACCATTGTT	GTATCATCAA	GTCCAGCTGC	AGCGATTTTG	TTTGAGTCAA	ATGTTCCAAG	7980
AACATCGCCA	GCTTTCACCT	TATTACCTTG	AGCAACTTTT	GTTTCAAAAC	CGTCACCGTT	8040
CATAGATACA	GTATCAATAC	CAACATGAAT	CAAACTTCA	GCACCATTTT	TTGTTTTCAA	8100
ACCAAAAGCG	TGCCCTGTTG	GAAAGGCAAT	TGAACTTCA	GCATCAGCTG	GTGCATAGAC	8160
CACGCCTTGG	CTTGGTTTCA	CAACGATACC	TTGTCCCAT	GCTCCACTTG	AGAAGACTGG	8220
GTCATTGACA	TCAGCAAGAG	CGACAACATC	ACCGACGATA	GGAGTTACAA	GTGTTTCATT	8280
TTGAAGAGCT	GCTGGCGCAA	CTTCTTCTTT	TTCTTCAGCC	ACTTCAGCTC	GTTTTGCAGC	8340
TGCAGTTGCG	TCTACTTCAT	CTTCGTAACC	AAACATGTAA	GTAAGAGCAA	AACCAAGGGC	8400
AAATGATACA	GCTACCATAA	GAAGGTATTG	TGGAAGTTGT	CCGTTACCAA	CATAAAGCAT	8460
TGTACCAGGG	ATGATGGTGA	TACCATTACC	AGTACCAGCA	AGTCCAAGGA	TAGAAGCCAA	8520
TCCACCACCG	ATTGCACCAG	CAATCAATGA	AAGGAAGAAT	GGTTTACGGA	AGCGCAAGTT	8580
CACCCGAAG	ATAGCAGGCT	CTGTAATACC	TAGGAAGGCA	GAAAGAGCAG	CCGGGAAAGC	8640
AAGTGTTTTT	AGTTTTGGAT	TTTTTGTTTT	AACACCAACC	GCAACAGTAG	CAGCACCTTG	8700
AGCTGTCATA	GCAGCTGTGA	TGATAGCGTT	GAATGGGTTA	GCATGGTCAG	CAGCAAGTAA	8760
TTGCACTTCA	AGCAAGTTGA	AGATGTGGTG	CACACCTGAC	ACGACGATCA	ATTGGTGAAC	8820
CCCACCAATC	AAGAAACCAC	CAAGACCAAA	TGGCATGCTA	AGAATCGCTT	TTGTAGCAAT	8880
AAGGATGTAG	TTTTCAACAA	CGTGGAAAAC	TGGTCCAATG	ACAAAGAGTC	CAAGGATAGA	8940
CATGACCAAA	AGTGTCACGA	ATGGTGTTAC	CAAGAGGTCA	ATGACATCTG	GAACAACTTG	9000
CGGACAGCTT	TTTCAAATTT	AGCTCCGACA	ACCCCGATGA	TGAAGGCTGG	AAGAACGGAA	9060
CCTTGCAAAAC	CAACAACAGG	GATGAAACCA	AAGAAGTTCA	TCGCTGTTAC	TTCACCACCT	9120
TGAGCAACTG	CCCAAGCGTT	TGGAAGTGAG	CCAGAGACAA	GCATCATACC	AAGAACGATA	9180
CCAACGGCAG	GATTTCCACC	AAATACACGG	AAGGTTGACC	ACACAACCAA	ACCTGGCAAG	9240
ATGATGAAGG	CTGTATCTGT	CAAGATTTGT	GTGTAAGTTG	CAAAGTCACC	TGGAAGTGGC	9300

324

ATTTCAAGAG CGTTGAAAAG ACCACGCACA CCCATGAAGA GACCTGTCGC TACGATAACT	9360
GGGATGATTG GAACGAAAAC ATCACCAAAA GTACGGATAG CACGTTGGAA CCAGTTCCCT	9420
TGTTTAGCAA CTTCTGCTTT CATGTCATCC TTAGATGATG TTGGTAATCC AAGTACAACA	9480
ACTTCATCGT ACATTTTGTT AACTGTACCT GTACCAAAGA TAATTTGGTA TTGCCCTGAG	9540
TTAAAGAAAG CACCTTGAAC TTTTCCAAG TTCTCAATCA CTTCTTTATT GATTTTCTCT	9600
TCATCTTTGA CCATGACACG TAGACGAGTC GCACAGTGGG CAACACTATT GACATTTTCA	9660
CGTCCGCCCA AGGCATCGAT GACTTTTTTT GCAATTTCCCT GATTGTTCAT TTGCAAAAAT	9720
CTCCTTATAT AACATTTTGT TCTTGTTTGA AAGCGATTTT ATTCGCCGG	9769

(2) INFORMATION FOR SEQ ID NO: 31:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3149 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

CGCTTGAGTG CTAATTCATA GTTCTATTGT ATCACTTGGT CAGAAATAAT CAAGAAAAAA	60
GTCTGACTTT CTCAAGATAA AAAGCCTGAG ACCAACTCAG ACTTTTAAAT TCTTAAATG	120
GCAATCTTTC CTCTTCCAAG ACCAAATCTG CCAAACTCTG GCCTGCATTA TTTTCACGCA	180
TAGCACGTTG GGCACGACTT TCCAAGAGTT GGAATCCTGT GACAAGTACT TCGGTCACGT	240
AGTTCATTTG GCCATTTTTC TCAAAGCGAC GGGTACGCAA TTCTCCATCA ACGGAAATGA	300
GACTACCTTT GGTGCGTAC TTGCCAAAGT TTCTGCTAGT CTGCCCCATA GGACCATATT	360
GACAAAATCA GCTTCACGTT CACCGTTTGT GTCTTTGTAA CGACGGTTCA CAGCGATAGT	420
TGCTCGCGCT ACCGACTTGT CATTGTTGGT TTTGTGCAAT TCTGGTGTAG ACGTTAAACG	480
TCCAATCAAG ATAACTTTAT TATACATATT TTCTTCCTCC TACTTATCTA TTCGTAGGAA	540
ATCAAAAAAA GTTACAGAAA TTTGTAACCT TTCGAGAAAA TTTTTTATTT TTTATGAACC	600
ATGAAACCTG TCGCCTGTTG ATTGGCCATA ATGGTCATAT CTGTAATCTG AACACGACGA	660
GGTTGACTAG TCACATAGAC TACTGTATCT GCAATATCCT GAGCTTGCAA AGCTTCTATT	720
CCTTGGTAAA CGGACGCAGC TCGTTCCTTA TCACCATGAA AACGCACTGT AGAAAAATCT	780
GTTTCGACAA TTCCAGGCTG AATGGTCGTC ACCTTGATAT CCGTTGCGAT GGTATCAATT	840
CGCAGTCCAT CTGAAAAGGT CTTAACTGCC GCCTTGGTGG CTGAGTAAAC AGCTGCACCA	900
GCATAGGCAT AAATTCCTGC GGTTGACCCC ATATTGATAA TATGACCTTG ATTGGCTTTT	960

325

ACCATTGCTG	GCAAGAAACA	GCGAGTGACT	GCCATCAAAC	CTTTGACATT	GGTATCCAAC	1020
ATGGTCAGCA	TATCCAACCTC	TTCATAGTCT	TGATAGGGAG	CTAAGCCAAG	AGCCAGTCCCT	1080
GCGTTATTGA	CCAGGATGTC	AATCTGACCT	ATCGTTTCTA	AAATATCAGA	GCAGACAGTC	1140
TTTACCATTG	TCATATCCGT	GACATCTAGG	AGAAAAGTCC	AAACTGTTTG	ATTTGGAAAA	1200
GTTTCTGCAA	ACTCCGCCTT	AAGAGCTTCT	AGTCTGTCTA	TCCGTCGTCC	TGTTAGAACG	1260
ACATCCTCAC	CCTGCTCCAG	ATAAGCACGC	GCAATCGCTT	CACCGATTCC	TGATGTCGCT	1320
CCTGTAATCA	CAACATTTTT	TGCCATCTTA	TTTCCTTCTA	GCTGGTCTAT	CAGATATTAA	1380
CAACTTCTTA	GGCAGTCCAG	TGTTTCGCTG	GGTCGAACGG	TGTTCCGACA	ACTTGGTCTT	1440
CTGATAATTC	AAGCACCCCA	CGTTTTTGTG	GAGCATTTGG	CAGATGCAAT	TCACGAGGAC	1500
TGCACATCAT	ACCAAAACTC	TTTTCACCAC	GAAGTTCACC	TGGGAAAATG	AGATTCCCTT	1560
TTGGCATCAT	AGCTCCAGGA	AGCGCGACAA	TGGTTTTCAA	CCCCACACGC	GCATTGGGAG	1620
CTCCTGCAAC	GATTTGTACA	GTCTTATCAC	TTGCGACTGC	AACTTGGCAG	ATGTTGAGGT	1680
GGTCACTATC	TGGATGGGCT	ACCATCTCAA	CAATTTCACC	TACAACAAAC	TTAGGTTCCCT	1740
TATCATTAAC	AATTTCTTCT	GTA AACCTT	CCGCCTGCAA	CTCTTGGTTC	AAACGAGCGA	1800
CTTGCTCATC	TGTCAAAAAG	ACTTGACCGC	GCTCTGCAAT	TTCAAATAAA	CTTGAAACTT	1860
CGAAAATATT	CCAAGCCACT	GTTTCCCAT	TATCTTTGAG	AAAAACACGG	GCTACCTTGC	1920
CTTTGCGCTC	CACATCCAGT	TTGGCATCTC	CGCTATTTTT	CACGATGACC	ATAAGGACAT	1980
CACCGACATG	TTCTTTATTA	TATGTAAAAA	TCATTGTTTC	CTTTTTCTCC	TATTTCAGTC	2040
CTGCTAAAAA	GTCATTGATT	TGTTGCTTGC	TTTTACGGTC	GCGATTGACA	AAACGACCGA	2100
TTTCCTTGTC	CTTTTCTAGA	ACAACAAGGC	TAGGAATTCC	GTAAACATCC	CAGAGTTTGG	2160
CCAAATCCAT	ATACTGATCT	CGGTCCATTC	GAATAAAGGT	GAACCTGGA	TTGGTCTCCT	2220
CAATCTCTGG	TAAGGCAGGA	TAAATATAAC	GACAATCGCT	ACACCAGTCT	GCCACAAAAA	2280
TGAAGACCTT	CTTGCCCGCT	TTTTCCACTA	AAGATGCTAA	TTCTTCTAAA	CTTGCTGGCT	2340
GTATCATAAG	ACTTCCTCCT	CATAGACTAG	GTCTTCATTT	TCATAGACAA	AGGTATAATG	2400
ACGGCCATCC	TCAAAAATGA	CGCCACCAAC	CAAGCTCTCC	AGACTGCTTT	CGTAAACTTG	2460
AACATAAAGG	GTCGCAATTT	CCCCATGTC	GGAAAAATGG	TCTCGCACAA	TCTCTGTCAA	2520
CTCTTCCTGA	GTCTTCATGA	GCTTACGGTC	ATCTGCAACT	TTTTTCGTAG	CAAGAGCAAG	2580
GCTTCCGATA	CCTAGCAGAG	CCAAGCCTGC	CATCCACATT	TTTTTAGCTT	TCATACCATT	2640
CATTTTAACA	CAAAAAAGGC	TTCAGGACAA	ATGAGGAAGC	AGCAGAAAAG	CAAGTAAAAA	2700

326

GCCTCTTCCT TTAAGGAAAA GGACTTCTTA TACTCAATGA AAATCAAAGA CCAAAGTAGG	2760
AAAGTAGCCG CAGGCTGCTC AAAGCACTGC TTTGAGGTG TAGATAGAAC TGACGAgTCa	2820
CTCAAAACAC TGTTTTGAGG TTGTGGATGA AGCTGACGTG GTTTGAAGAG ATTTTCGAAG	2880
AGTATTATTC TTATTGCCAG GCACCTAAGT TGCCAACGTA GTAACATATCA GGTGTGTAGG	2940
TATTGCGAGC ATCTTACCTG ATGAAGCCAG ATAATACTAC TTGCCATTGT CTTTGACCCA	3000
ATCATTCGCA ATCATGGAAC CAGAAGAACT TACATAATAC CATTCTCCCT TGTCAATAAC	3060
CCAAGTACTG ACTTTCATGG TTCCTGAGCA ATTAAAGGCA AAAAACTGT CCAATAACAT	3120
TCGTTTTTTA AAAGCATTG ACACTACAT	3149

(2) INFORMATION FOR SEQ ID NO: 32:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10240 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

CCAAAAATTC AACCTTTAAG GGGAGTCCAG AGAGACTCAC AAGGTGTCAG ATAAAAGAAT	60
GGTGCAATTT TCTAGAGGAG ACTTTTGTAG TGTGCTCTCT TGTGTTGTAC GATTTTAACT	120
GAGGCCCTGC ACTAGCAAGG TCTTTTCTTT ATCTGGTCCC CTTAAAATTT AAGGAGGAAA	180
AGTTATGAAT CCCACATGTA AGAAGCGTTT GGGTGTCAAT CGGTTGGAAA CCATGAAGGT	240
GGTTGCACAA GAGGAAATCG CGCCACAATC TTTGAATTAG TCCTAGAAGG AGAAATGGTT	300
GAAGCCATGC GAGCAGGCCA ATTTCTTCAT CTGCGTGTAC CGGACGATGC CCATCTCTTA	360
CGTCGTCCTA TTTCAATTTC GTCTATTGAC AAGGCAAACA AGCAGTGTCA CCTCATTTAT	420
CGGATTGACG GAGCTGGGAC TGCAATTTTT TCAACCTTAA GTCAGGGAGA CACTCTTGAT	480
GTGATGGGGC CTCAGGGAAA TGTTTTTGAC TTGTCTGACC TTGATGAGCA GAATCAGGTT	540
CTCCTTGTTG GTGGTGGGAT TGGTGTTCCTA CCCTTGCTTG AGGTGGCCAA GGAATTGCAT	600
GAACGTGGAG TGAAAGTAGT GACAGTCCTC GGTTTTGCTA ATAAGGATGC TGTATTTTTG	660
AAAACGGAAT TGGCTCAGTA TGGTCAGGTC TTTGTAACGA CAGATGATGG TTCTTATGGC	720
ATCAAGGGAA ATGTTTCCGT TGTATCAAT GATTTAGACA GTCAGTTTGA TGCTGTTTAC	780
TCGTGTGGGG CTCCAGGAAT GATGAAGTAT ATCAATCAAA CCTTGATGA TCACCCAAGA	840
GCCTATTTAT CTCTGGAATC TCGTATGGCT TGTGGGATGG GAGCTTGCTA TGCCTGTGTT	900
CTAAAAGTAC CAGAAAACGA GACGGTCAGC CAACGCGTCT GTGAAGATGG TCCTGTTTTC	960

CGCACAGGAA CAGTTGTATT ATAAGGAGAA AATTATGACT ACAAATCGAT TACAAGTTTC	1020
TCTACCTGGT TTGGATTGGA AAAATCCGAT TATCCAGCA TCAGGCTGTT TTGGCTTTGG	1080
ACAAGAGTAT GCCAAGTACT ATGATTTAGA CCTTTTAGGT TCTATTATGA TCAAGGCGAC	1140
AACCCTTGAA CCACGTTTTG GGAATCCAAC TCCAAGAGTG GCAGAGACGC CTGCTGGTAT	1200
GCTCAATGCA ATTGGCTTGC AAAATCCTGG TTTAGAGGTT GTTTTGGCTG AAAAGCTACC	1260
TTGGCTGGAA AGAGAATATC CAAATCTTCC TATTATTGCC AATGTAGCTG GTTTTTCAAA	1320
ACAAGAGTAT GCAGCTGTTT CTCATGGGAT TTCCAAGGCA ACTAATGTAA AAGCTATCGA	1380
GCTCAATATT TCTTGTCCCA ATGTTGACCA CTGTAATCAT GGACTTTTGA TTGGTCAAGA	1440
TCCAGATTTG GCTTATGATG TGGTGAAAGC AGCTGTGGAA GCCTCAGAAG TGCCAGTTTA	1500
TGTCAAATTA ACCCCGAGTG TGACCGATAT CGTACTGTG CAAAAGCTG CAGAAGATGC	1560
GGGAGCAAGT GGCTTGACCA TGATCAATAC TCTGGTTGGA ATGCGCTTTG ACCTCAAAAC	1620
TAGAAAACCA ATCTTGGCCA ATGGAACAGG TGGAATGTCT GGTCAGCAG TCTTTCAGT	1680
AGCCCTCAAA CTCATCCGCC AAGTTGCCCA AACAACAGAC CTGCCTATCA TTGGAATGGG	1740
AGGAGTGGAT TCGGCTGAAG CTGCCCTAGA AATGTATCTG GCTGGGGCAT CTGCTATCGG	1800
AGTTGGAACA GCTAACTTTA CCAATCCTTA TGCCTGCCCT GACATCATCG AAAATTTACC	1860
AAAAGTCATG GATAAATACG GTATTAGCAG TCTGGAAGAA CTCCGTCAGG AAGTAAAAGA	1920
GTCTCTGAGG TAAACTGCAA TCAATCTGTT CTTGATTTTT TATTAGTTTG TAATATGAAT	1980
TTAGGAGAAT TTTTGTACAA TAAAATAAAT AAGAACAGAG GAAGAAGGTT AATGAAGAAA	2040
GTAAGATTTA TTTTTTTAGC TCTGCTATTT TTCTTAGCTA GTCCAGAGGG TGCAATGGCT	2100
AGTGATGGTA CTTGGCAAGG AAAACAGTAT CTGAAAGAAG ATGGCAGTCA AGCAGCAAAT	2160
GAGTGGGTTT TTGATACTCA TTATCAATCT TGGTTCTATA TAAAAGCAGA TGCTAACTAT	2220
GCTGAAAATG AATGGCTAAA GCAAGGTGAC GACTATTTTT ACCTCAAATC TGGTGGCTAT	2280
ATGGCCAAAT CAGAAATGGT AGAAGACAAG GGAGCCTTTT ATTATCTTGA CCAAGATGGA	2340
AAGATGAAAA GAAATGCTTG GGTAGGAACT TCCTATGTTG GTGCAACAGG TGCCAAAGTA	2400
ATAGAAGACT GGGTCTATGA TTCTCAATAC GATGCTTGGT TTTATATCAA AGCAGATGGA	2460
CAGCACGCAG AGAAAGAATG GCTCCAAATT AAAGGGAAGG ACTATTATTT CAAATCCGGT	2520
GGTTATCTAC TGACAAGTCA GTGGATTAAT CAAGCTTATG TGAATGCTAG TGGTGCCAAA	2580
GTACAGCAAG GTTGGCTTTT TGACAAACAA TACCAATCTT GGTTTTACAT CAAAGAAAAT	2640
GGAAACTATG CTGATAAAGA ATGGATTTTC GAGAATGGTC ACTATTATTA TCTAAAATCC	2700

328

GGTGGyTACA TGGCAGCCAA TGAATGGATT TGGGATAAGG AATCTTGGTT TTATCTCAAA	2760
TyTGATGGGA AAATrGCTGA AAAAGAATGG GTCTACGATT CTCATAGTCA AGCTTGGTAC	2820
TACTTCAAAT CCGGTGGTTA CATGACAGCC AATGAATGGA TTTGGGATAA GGAATCTTGG	2880
TTTTACCTCA AATCTGATGG GAAAATAGCT GAAAAAGAAT GGGTCTACGA TTCTCATAGT	2940
CAAGCTTGGT ACTACTTCAA ATCTGGTGGC TACATGGCGA AAAATGAGAC AGTAGATGGT	3000
TATCAGCTTG GAAGCGATGG TAAATGGCTT GGAGGAAAA CTACAAATGA AAATGCTGCT	3060
TACTATCAAG TAGTGCCTGT TACAGCCAAT GTTTATGATT CAGATGGTGA AAAGCTTTCC	3120
TATATATCGC AAGGTAGTGT CGTATGGCTA GATAAGGATA GAAAAAGTGA TGACAAGCGC	3180
TTGGCTATTA CTATTTCTGG TTTGTCAGGC TATATGAAAA CAGAAGATTT ACAAGCGCTA	3240
GATGCTAGTA AGGACTTTAT CCCTTATTAT GAGAGTGATG GCCACCGTTT TTATCACTAT	3300
GTGGCTCAGA ATGCTAGTAT CCCAGTAGCT TCTCATCTTT CTGATATGGA AGTAGGCAAG	3360
AAATATTATT CGGCAGATGG CCTGCATTTT GATGGTTTAA AGCTTGAGAA TCCCTTCCTT	3420
TTCAAAGATT TAACAGAGGC TACAACTAC AGTGCTGAAG AATTGGATAA GGTATTTAGT	3480
TTGCTAAACA TTAACAATAG CCTTTTGGAG AACAAGGCG CTACTTTTAA GGAAGCCGAA	3540
GAACATTACC ATATCAATGC TCTTTATCTC CTGCCCCATA GTGCCCTAGA AAGTAACTGG	3600
GGAAGAAGTA AAATTGCCAA AGATAAGAAT AATTTCTTTG GCATTACAGC CTATGATACG	3660
ACCCCTTACC TTTCTGCTAA GACATTTGAT GATGTGGATA AGGGAATTTT AGGTGCAACC	3720
AAGTGATTA AGGAAAATTA TATCGATAGG GGAAGAACTT TCCTTGGAAG CAAGGCTTCT	3780
GGTATGAATG TGAATATGC TTCAGACCCT TATTGGGGCG AAAAAATGCT TAGTGTGATG	3840
ATGAAAATCA ATGAGAAGCT AGGTGGCAAA GATTAGTACT ATAAGTGAAT ATGATTTGAG	3900
TGAATAGTAA GTTAAAAATC CTGATTTCAA GTAAAATCAG GATTTTTTCA TGGATGCAAT	3960
TTTTTTGGAG TCTGGTGTGA CGCGGAGGGT CTTTTGTCCT GTGTAAGTGA CAAAGCCGGG	4020
TTTTCCACCA GTTGGTTTAT TGAGTTTTTT GACTTCAATC ATATCTACCT GCACCAGATT	4080
CGACAGGCGC CCTTGAGAGA AGTAGGCAGC TAACCTGCT GCGTCTGTCT TGACTGCATC	4140
AGATGGGTCA AGATTTCCCTG AGATGACAAC ATGGCTTCCA GGAATGTCCT TAGCATGGAA	4200
CCAAAGTTCC TCCTTGCGGG CCATTTTAAA GGTCAATTCC TCATTTTGAA GATTGTTTCG	4260
TCCGACATAG ATGATGGTTT TGCCATCGCT TGCTAGATAT TGTTCCTAGTT TTTTGCCTTT	4320
CTGGATTTTC TCCCGTTGTC TTCTGCGGAT AAAACCTGTT TGAATCAATT CTTCACGGAT	4380
TTCAGCGATT TCTTCCAGTC CAGCTTGGTT GAGGACGGTT TCTACACTTT CCAGATAGAG	4440
AATAGTGGCT TTGGTTTCTT CAATCAAATC AGTCAAGTAT TTGACAGCTT CTTTGAGTTT	4500

329

CTGATACCGT	TTAAATAGC	GTTGGGCATT	CTGGTTGGGA	GTCAGAGCCT	TATCAAGCGC	4560
AATCATGATA	GGTTGGTTGG	TATAGTAGTT	GTCTAGGATA	ACCTGGTCTT	GGTCGTTAGG	4620
CACTTGGTGG	AGGAAGGTTG	TCAGCAATTC	TCCTTTTGA	CGAAATTCCT	CAGCGTTGTC	4680
TGTCGCCAGT	AACTCTTTT	CCTGTTTTT	GAGTTGTGT	CGGTTTTCT	GAAGTTCATT	4740
TTCAACACGA	CGAATCAGTT	CACTGGCCTG	CTGTTTGACG	CGGTCGCGCT	CAGCCTTATC	4800
CTTATAGTAG	GTGTCCAACA	AATCAGAAAG	ATTGCAAAA	GGCTCTCCCA	CCTGATTGTC	4860
AAAAGGAACT	GGACTGAAGG	AAGTCTCAGT	CAAGCATGGC	TTGGTTTCTT	GATTGAAAAA	4920
ATTTTCGAAA	GCGGAAAGTT	TTTCACTAAC	CAGTATCCTT	TCCAATTCAT	TTGCCGTATC	4980
GCGTCCCAGA	CCTTGAAAGA	GGCTTGAAG	ATTTTTTGCT	GTTAGTTCTT	GGGTTGCGAG	5040
GATTTCAAAG	AGCTTTTCAT	CCTTGATAGT	AAAAGGATTG	AGAGATTTTG	TACTTGGCGG	5100
AGCGATATAG	GTCGATCCTG	GAAGTAAGGT	GCGGTAGCTA	TTTTGTGAAA	AGCCGACGTG	5160
TTTGATAACT	TCGAGGATTT	TATGACTGCT	TTTATCGACC	AGTAGAATAT	TACTGTGTTT	5220
CCCCATAATT	TCGATAATCA	AGGTAGCCTG	GATATGGTCT	CCAATCTCGT	TTTTATTGGA	5280
AACTGTAATT	TCCACAATAC	GGTCATTTTC	CACTTGCTCA	ATCGACTCAA	TCAGGGCCCC	5340
CTGCAAATAC	TTTCTCAAAA	CCATGATAAA	GGTAGAAGGT	TGAGCTGGAT	TTTCAAAAGT	5400
CGTTTGGGTC	AGCTGAATGC	GTCCAAAAAC	TGGATGGGCA	GAAAGGAGCA	GGCGATGGCT	5460
TTGGCGATTG	CTGCGGATTT	GCAAGACCAA	CTCTTGTTCA	AAAGGCTGAT	TGATTTTCTG	5520
GATGCGACCA	TTCACTAATT	CGCTTCGCAA	TTCCTCAACT	ATGTGGTGTA	AAAAAATCC	5580
GTCAAATGAC	ATCGTTCTCT	CCTTGTGATT	GTATTCCATA	GTATTATATC	AAAAAGGTAG	5640
AATAAAATCA	TGGAAATGTG	GTATAATAAA	GCCAAGTAAA	GAGAAACGAG	AAGCACATGT	5700
ATATTGAAAT	GGTAGATGAA	ACTGGTCAAG	TTTCAAAAGA	AATGTTGCAA	CAAACCCAAG	5760
AAATTTTGGA	ATTTGCAGCC	CAAAAATTAG	GAAAAGAAGA	CAAGGAGATG	GCAGTCACTT	5820
TTGTGACCAA	TGAGCGTAGT	CATGAACTTA	ATCTGGAGTA	CCGTAACACC	GACCGTCCGA	5880
CAGATGTCAT	CAGCCTTGAG	TATAAACCAG	AATTGGAAAT	TGCCTTTGAC	GAAGAGGATT	5940
TGCTTGAAAA	TTCAGAATTG	GCAGAGATGA	TGTCTGAGTT	TGATGCCTAT	ATTGGGGAAT	6000
TGTTTCATCTC	TATCGATAAG	GCTCATGAGC	AGGCCGAAGA	ATATGGTCAC	AGCTTTGAGC	6060
GTGAGATGGG	CTTCTTGGCA	GTACACGGCT	TTTTACATAT	TAACGGCTAT	GATCACTACA	6120
CTCCGGAAGA	AGAAGCGGAG	ATGTTCCGTT	TACAAGAAGA	AATTTTGACA	GCCTATGGAC	6180
TCACAAGACA	ATAAACGAAA	ATGGAAAAAT	CGTGACTTGA	TATCCAGTTT	AGAATTTGCT	6240

330

TTGACAGGTA TTTTACTGTC TATCAAGGAA GAACGCAATA TGCGAAAACA CGCAGTGACG	6300
GCTCTAGTGG TCATCCTTGC AGGTTTGTGT TTTCAGGTGT CACGAATCGA ATGGCTCTTT	6360
CTCCTATTGA GTATTTCTTT GGTAGTAGCC TTTGAGATTA TCAACTCTGC TATTGAAAAT	6420
GTGGTGGATT TGGCCAGTCA CTATCACTTT TCCATGCTGG CTAAAAATGC CAAGGATATG	6480
GCGGCCGGCG CGGTATTAGT GGTTCCTCTT TTCGCAGCCT TAACAGGCGC ATTGATTTTT	6540
CTCCCACGAA TCTGGGATTT ATTATTTTAA ACAGTAAGAG GAAATTATGA CTTTAAATC	6600
AGGCTTTGTA GCCATTTTAG GACGTCCCAA TGTTGGGAAG TCAACCTTTT TAAATCACGT	6660
TATGGGGCAA AAGATTGCCA TCATGAGTGA CAAGGCGCAG ACAACGCGCA ATAAATCAT	6720
GGGAATTAC ACGACTGATA AGGAGCAAAT TGTCTTTATC GACACACCAG GGATTACAA	6780
GCCTAAAACA GCTCTCGGAG ATTTTCATGGT TGAGTCTGCC TACAGTACCC TTCGCGAAGT	6840
GGACACTGTT CTTTTCATGG TGCCTGCTGA TGAAGCGCGT GGTAAGGGGG ACGATATGAT	6900
TATCGAGCGT CTCAAGGCTG CCAAGGTTCC TGTGATTTTG GTGGTGAATA AAATCGATAA	6960
GGTCCATCCA GACCAGCTCT TGTCTCAGAT TGATGACTTC CGTAATCAAA TGGACTTTAA	7020
GGAAATTGTT CCAATCTCAG CCCTTCAGGG AAATAACGTG TCTCGTCTAG TGGATATTTT	7080
GAGTGAAAAT CTGGATGAAG GTTTCCAATA TTTCCGCTCT GATCAAATCA CAGACCATCC	7140
AGAACGTTTC TTGGTTTCAG AAATGGTTTCG CGAGAAAGTC TTGCACCTAA CTCGTGAAGA	7200
GATTCGCAT TCTGTAGCAG TAGTTGTGTA CTCTATGAAA CGAGACGAAG AGACAGACAA	7260
GGTTCACATC CGTGCAACCA TCATGGTCGA GCGCGATAGC CAAAAGGGA TTATCATCGG	7320
TAAAGGTGGC GCTATGCTTA AGAAAATCGG TAGCATGGCC CGTCGTGATA TCGAACTCAT	7380
GCTAGGAGAC AAGGTCTTCC TAGAAACCTG GGTCAAGGTC AAGAAAAACT GGCGCGATAA	7440
AAAGCTAGAT TTGGCTGACT TTGGCTATAA TGAAAGAGAA TACTAAGTAG AGGTAGGCTC	7500
ATGCCTGCTT CTTGTTTTTA CAGAAGGAGG ACTTATGCCT GAATTACCTG AGGTGAAAC	7560
CGTTTGTCGT GGCTTAGAAA AATTGATTAT AGGAAAGAAG ATTTGAGTA TAGAAATTCG	7620
CTACCCCAAG ATGATTAAGA CGGATTTGGA AGAGTTTCAA AGGGAATTGC CTAGTCAGAT	7680
TATCGAGTCA ATGGGACGTC GTGGAAAATA TTTGCTTTTT TATCTGACAG ACAAGGTCTT	7740
GATTTCCCAT TTGCGGATGG AGGGCAAGTA TTTTACTAT CCAGACCAAG GACCTGAACG	7800
CAAGCATGCC CATGTTTTCT TTCATTTTGA AGATGGTGGC ACGCTTGTTT ATGAGGATGT	7860
TCGCAAGTTT GGAACCATGG AACTCTTGGT GCCTGACCTT TTAGACGTCT ACTTTATTTT	7920
TAAAAAATTA GGTCTGAAC CAAGCGAACA AGACTTTGAT TTACAGGTCT TTCAATCTGC	7980
CCTTGCCAAG TCCAAAAAGC CTATCAAATC CCATCTCCTA GACCAGACCT TGGTAGCTGG	8040

331

ACTTGGCAAT ATCTATGTGG ATGAGGTTCT CTGGCGAGCT CAGGTTCATC CAGCTAGACC	8100
TTCCCAGACT TTGACAGCAG AAGAAGCGAC TGCCATTTCAT GACCAGACCA TTGCTGTTTT	8160
GGGCCAGGCT GTTGAAAAAG GTGGCTCCAC CATTCGGA CTATGATAAG ACTGGTCAAG AATGTGTACG	8220
AGATGGAAGC ATGCAGGACT TTCATCAGGT CTATGATAAG ACTGGTCAAG AATGTGTACG	8280
CTGTGGTACC ATCATTGAGA AAATTCAACT AGGCGGACGT GGAACCCACT TTTGTCCAAA	8340
CTGTCAAAGG AGGGACTGAT GGGAAAAATC ATCGGAATCA CTGGGGGAAT TGCCTCTGGT	8400
AAGTCAACTG TGACAAATTT TCTAAGACAG CAAGGCTTTC AAGTAGTGGA TGCCGACGCA	8460
GTCGTCCACC AACTACAGAA ACCTGGTGGT CGTCTGTTTG AGGCTCTAGT ACAGCACTTT	8520
GGGCAAGAAA TCATTCTTGA AAACGGAGAA CTCAATCGCC CTCTCCTAGC TAGTCTCATC	8580
TTTTCAAATC CTGATGAACG AGAATGGTCT AAGCAAATTC AAGGGGAGAT TATCCGTGAG	8640
GAACCTGGCTA CTTTGAGAGA ACAGTTGGCT CAGACAGAAG AGATTTTCTT CATGGATATT	8700
CCCTACTTT TTGAGCAGGA CTACAGCGAT TGGTTTGCTG AGACTTGGTT GGTCTATGTG	8760
GACCGAGATG CCCAAGTGGA ACGCTTAATG AAAAGGGACC AGTTGTCCAA AGATGAAGCT	8820
GAGTCTCGTC TGGCAGCCCA GTGGCCTTTA GAAAAAAGA AAGATTGGC CAGCCAGGTT	8880
CTTGATAATA ATGGCAATCA GAACCAGCTT CTTAATCAAG TGCATATCCT TCTTGAGGGA	8940
GGTAGGCAAG ATGACAGAGA TTAAGTGGAA GGATAATCTG CGCATTCCTT GGTGTGTAA	9000
TTTTCTGACA GGAGCCAGTA TTTCTTTGGT TGTACCTTTT ATGCCCATCT TCGTGAAAAA	9060
TCTAGGTGTA GGGAGTCAGC AAGTCGCTTT TTAGTCAGGC TTAGCAATTT CTGTCTCTGC	9120
TATTTCCGCG GCGCTCTTTT CTCCTATTG GGTATTCTT GCTGACAAAT ACGGCCGAAA	9180
ACCCATGATG ATTCGGGCAG GTCTTGCTAT GACTATCACT ATGGGAGGCT TGGCCTTTGT	9240
CCCAAATATC TATTGGTTAA TCTTCTTCG TTTACTAAAC GGTGTATTG CAGGTTTTGT	9300
TCCTAATGCA ACGGCACTGA TAGCCAGTCA GGTTCCAAAG GAGAAATCAG GCTCTGCCTT	9360
AGGTACTTTG TCTACAGCG TAGTTGCAGG TACTCTAACT GGTCCCTTTA TTGGTGGCTT	9420
TATCGCAGAA TTATTTGGCA TTCGTACAGT TTTCTTACTG GTTGGTAGTT TTCTATTTTT	9480
AGCTGCTATT TTGACTATTT GCTTTATCAA GGAAGATTTT CAACCAGTAG CCAAGGAAAA	9540
GGCTATTCCA ACAAAGGAAT TATTTACCTC GGTTAAATAT CCCTATCTTT TGCTCAATCT	9600
CTTTTAAACC AGTTTTGTCA TCCAATTTTC AGCTCAATCG ATTGGCCCTA TTTTGGCTCT	9660
TTATGTACGC GACTTAGGGC AGACAGAGAA TCTTCTTTTT GTCTCTGGTT TGATTGTGTC	9720
CAGTATGGGC TTTTCCAGCA TGATGAGTGC AGGAGTCATG GGCAAGCTAG GTGACAAGGT	9780

332

GGGCAATCAT CGTCTCTTGG TTGTCGCCCCA GTTTTATTCA GTCATCATCT ATCTCCTCTG	9840
TGCCAATGCC TCTAGCCCCC TTCAACTAGG ACTCTATCGT TTCCTCTTTG GATTGGGAAC	9900
CGGTGCCTTG ATTCCCGGGG TTAATGCCCT ACTCAGCAAA ATGACTCCCA AAGCCGGCAT	9960
TTGAGGGGTC TTTGCCTTCA ATCAGGTATT CTTTTATCTG GGAGGTGTTG TTGGTCCCAT	10020
GGCAGGTTCT GCAGTAGCAG GTCAATTGCT CTACCATGCT GTCTTTTATG CGACAAGCCT	10080
TTGTGTTGCC TTTAGTTGTC TCTTTAACCT GATTCAATTT CGAACATTAT TAAAAGTAAA	10140
GGAAATCTAG TGCGAGTAAA AATCAATCTC AAATGCTCCT CTTGTGGCAG TATCAATTAC	10200
CTAACCAGTA AAAATTCAAA AACCCTATCCA GACAgATTGA	10240

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13206 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

CGCTTTATCG TGGACGTGGT CAAGCCGAGA ATTTTCATCAA GGAGATGAAG GAGGGATTTT	60
TTGGCGATAA AACGGATAGT TCAACCTTAA TCAAAAACGA AGTTCGTATG ATGATGAGCT	120
GTATCGCCTA CAATCTCTAT CTTTTTCTCA AACATCTAGC TGGAGGTGAC TTCCAAACTT	180
TAACAATCAA ACGCTTCCGC CATCTTTTTC TTCACGTGGT GGGAAAATGT GTTCGAACAG	240
GACGCAAGCA GCTCCTCAA TTGTCTAGTC TCTATGCCTA TTCCGAATTG TTTTCAGCAC	300
TTTATTCTAG GATTAGAAAA GTCAACCTGA ATCTTCCTGT TCCTTATGAA CCACCTAGAA	360
GAAAAGCGTC GTTAATGATG CATTAAAGAA CAGTCGAGAT GAAAAAATCG TGTGACGCAC	420
CAAGGGAGGA GTCTGCCCTT TTGAGGAAAT CTAGCGAGGA AAAACGATAC TGGAACAGCA	480
GAAAGTAAAA CTGACCTCAT GAGGAGGAAG AAAGTGGCTC ATGAGGTCAG GGGTTTGTGA	540
AGTTACATCT AGTTGAGAGA GGTATGAATG ATTTGGGATT AATCATTCTT TGTTTAAAT	600
CAGGAGAATA GTAACGATTT TTTCTTTTTT TGACGAATC TATTCCGTAA CGATCAATCA	660
ATTTAATCAT GTACCTAATA TTAGAATTGT TTATCCCAA TTTATTTGAA AGCTTCTCTA	720
AGCTATATCC TTGTTTTCTA AGTTCATAGA TCTGAACCTT ATCATCATAA GTTAGTTTCA	780
TAATAAAAAC ACCCCAAAAG TTAGATTTTT TCTGTCTAAC TTTTGGGGGG CAGTTCATTC	840
AACACCTGAT ACTATGCGTT TTTCTTATTT GAAATACTTT TTAACAACC TCTTTATACT	900
CAATGAAAAT CAAAGTGCAA ACTAGAAAGC TAGCCTCAGG CTGCTCAAAA CAGTGTTTGT	960

333

AGGTTGCAGA TGGAAGCTGA CGTGTTTGA AGAGATTTTC GAAGAGTATT ACTTAATCTT	1020
CTTGATACTT TGAATAAGAA TAAATCCTAC AATCATCCCT ACCATATTTT GCATAAAATT	1080
CGGTAGAATT TCTGGGAGGG CTGCTGCCCA GCCATTTCATC AAAGCAGAAC CCAAGGCGTA	1140
GCCTCCTACC ATGGCAATAG TTGCTAAAAT AAGGCCTAAC CACTGACTTT TTCCTTTAAA	1200
TCCTGCGAAA AATCCCTGCA AGCCATGGTT GACCAAGCTA AAGAACATCC ACTGAGGGTA	1260
GCCTGATAAG AGGTCAATCA AGAACTTGC TAGTCCTCCG ACTACCGCTC CTTCACGACT	1320
ACCAAAGTAA AAGCCCGCAA AGAAGACACC AGCATCTAAA AGAGTTAGAA TTCCTGTAGG	1380
TGTTGGGATT TTTAAGAAAT AACCTAGAAC CACAGAAAGG GCGGTTAATA GGGATACAAG	1440
GGCGATTTTA GTTGTTTTGG TTTGCTTCAT ATTGTCTTAC TCCATACTGA TCTGCTTGTG	1500
CAATAGCACG ATAAACGAAA GCCTTAGAGC TTTCTACTGC TGGCAAAAGT TTATCACCTT	1560
TAACCAGGTG ACTGGCAATG CTAGAGsCAA AGGTACAACs TGCACCAGCA TTTTGGCCTT	1620
GGATAACTGG ATTTTCTAGG ATAGTAAAGG TCTGTCCATC ATAAAGACA TCCACAGCCT	1680
TGTCTGACT AAGACGATTG CCTCCCTTGA TAATGACTGt GGCCTCCTA AATCATGCAA	1740
TTTCTGCGCT GCAGTTTCA TGTCTTCCAA GGTTTTAATT TCCTGACCGG ATAATAATTC	1800
TGCTTCTGGG AGATTAGGCG TAATCACACT GACATAAGGG AAAAAGCGAA TCAACTCTTG	1860
GCAGAGCTCA CTGACAGCTA CATCATGCGT TTCCTTGCG AGCAAGACAG GATCCAACAC	1920
CACAGGTACT CCTGGGCGTT GTTTGATAAA GTCCAAGGCC TTCTCAGCCA CGCTGACAGT	1980
AGGGAGAAGA CCAATCTTAA TTCCCCAAA TTCCACATCA CGCAAGCTAT CTAATTCATG	2040
TTGAAAAATG GTATCATCAG TTGGAAAGAC TTCAAATCCT TTTTCTGTCA AGGCTGTCAA	2100
ACAAGTCACT GCTACAAACC CATGCAAGCC GTTCAAGGTA TAGGTAGCCA AATCAGCTGA	2160
CAGTCCACCA CCACTAAAAA TATCATTTCC AGAAAGTGCT AAAATACGAT TATTCTTCAT	2220
AACGAATCTC CTTTAAATAC AAACCATTG GTGCTGCAGT GGGACCTGCA AGTTGCCTGT	2280
CCTTCTTCTC CAAGATGAGA TCAATCTGCT CTACTGGCAT GCGGTTGTTA CCGATTTTGA	2340
GAAGAGTCCC CACCATATTG CGAATCTGTT TATACAAGAA ACCATTTCTT GAAAAGGTAA	2400
AGGTCAAAAA TTGTCTGTG TCATCGACTA TTAACTAGC TTCTGTGATG GTGCGAACCT	2460
TATCCTCTAC ACTAGTCCCA GAGGCTGTAA AACCAGTAAA ATCATGGGTT CCCTCTAGCT	2520
TTTTGATTGC AATCTGCATT CGTTCACAT CGAGTGGGTA GGGAAAGTGG GTGGCATAGT	2580
GACGGCGCAT CGGATTTTGG GGACGTCTC TATCCACAGT AAATCATAG GTCTTGCTAT	2640
GCTTGGCATA ACGGCAATGA AAATCATCTG CCACAAGCTC AATCGAAATC ACATCAATAT	2700

334

CTTCAGGAGA CTGGGTATCC AAGGCAAAAC GGAGTTTCTC CTCATCCATC TGATAAGGCA	2760
GGTCAAAATG AATCACCTGT CCCAGGGCAT GAACCCCACT ATCTGTCCTA CCAGCACCGT	2820
GAACAGTAAT GGCTTGCCCT TTATTTAATC TGGTCAAGGT TTTTTC AATT TCTTCCTGAA	2880
CGCTACGCGC ATGAGGCTGG CGCTGAAAGC CAGCAAAGGC ATAACCATCA TAGGAAATAG	2940
TTGCTTTATA TCTCGTCATA GCCTCTATTT TATCAAGAAA TTAGTCTGTA AACAAGGACC	3000
TAAAACAAAT ATTGTATGGG TATAAAAATC TCATACTCTT CGAAAATCTC TTCAAACCAC	3060
GTCAGTTTCC ATCTGCAACC TCAACACACT ATTTTGAGCA ACCTGCGGCT AGCTTTCTAT	3120
AGTAGATTGA AATAAGATAT GAACAACCTCT ATTAGGAAAG TCAAATTAAT TTCTAGAAAT	3180
ATTTTAGCAG CTACAGCGTA CTATTCCAAA CTCAATCAAC TATAGTTTGC TCTTTGATTT	3240
TCATTGAGTA TCAAAAGAAA AACTTAGGAA TCAATCCTAA GCTCTCTTCT GAAGTAGGTA	3300
CATGACAAAG ATAGAGATTA CAATCAACCA ACCTCCTAAG ATACTAAAGA CCAACATCCC	3360
ATTGTGAGTT AGTAAGCCAA TTGCACCTAG AACGAATGGG GTCGTAAAGG CTCCGAAACT	3420
ACAGCCTAAT ACAGCAAATG AAGTTGCTTG ATTGAGGAGT TTAGCTGGAA TTCGTTCAGA	3480
GACAAGTTGA AAGACCGTCG TCAAGACTAC ACTATAGGCA AATCCAGCCA GAACACTTCC	3540
TGCTACTACC ACCCACAAGG ATGAAGACAA GGCAATCACG ATTTGCCCA AGCCAAAGGT	3600
AATACCAGAC CAGAGGAGCA GTTCTCTTTT AAAGATAGAA ATCAAGAAAG AAAAACTCAC	3660
CCCAGCCACA ATCCCCATCA ACTGCATGAT ACTAAGAACA AACTAGATA ACTGGGCATC	3720
CCCCAATCCT CTTTCCACCA TCAAACCTGG AATACGGATG GTAATAGCTG TATTGGTACA	3780
AACTACAAC TCCGCTTCGA TAGCTAAGGT AAAAATCAAG CCTTTCATTT CTCGAGTTAA	3840
ACGACTTGCT TCCTTCGCTC TTTTCTTGAC TTCTTTCTTT GATTTTCCAT AAGGGACAAA	3900
GAGCAGATAA AGGGGCAGCA CCAAAAATCC AGCACTATAG GCTAGAAAGA TAGCTGTCCA	3960
ACCAAAGGCC AACAACTGAC CGACGGCCAA GGTAATGAGA GAAGCTCCAA CGACCTCTGC	4020
AGAAGCGCGT AGCCCTAACA TCTGAATTCG CCTTTTCCT TGGTAGCGTT CACTGATAAT	4080
AGAAATGGCC TTGGCATTGA TCATCCCAAG ACCCAAACCA AAGAGAAGCC GTGTTCCAAA	4140
GACAAAGGGA TAGGCTTGGT ACCAGAAGGG AGCTGTACCG CTCAATGATA AAATCAGCAA	4200
GCCCCAACTA ATCTGTAAGC GCTCAGGAAA TATTTTCTCT AAGAAACCAT TTAGCAGTAA	4260
CATCATCATG ATTCCAAAGG AAGGCAAGCT CACCAAGAGC TCAATTTGTT CCTTAGAATA	4320
ACCCTGATAA TAGTCAAACA TGGCTGGTAG GGCACCTGAA ATGGAAAAGG AGGTAATCAA	4380
AACGAGGGAG AGAGCCAAAA TGCTGGCCCG TTCTAAAAAT TGTTTCATGA AATCTCTTTC	4440
TATATTTCTC TTAATCTTCT ACTTTTTTGA TAGTTATCAA ATAAGCAAGA AAAGAAGAAG	4500

335

CCTCATTTGGT TTGTAGACTC CTTCTTAAAT TCGAAAATGA ATCCCTTGTA TCTTATACTC	4560
AATGAAAATC AAAGAGCAAA CTAGGAAGCT AGCCGCAGGT TGTTCAAAAC AGTGTTTTGA	4620
GGTTGCAGAT GGAAACTGAC GTGGTTTGAA GAGATTTTCG AAGAGTATTA GGATGACTTT	4680
CTCTTGATTT GCTTGATAAA GTAGAAAATA AATCCTGCTA CCATATAGGC AACAAAGATA	4740
ATCAGACACC ACTTAAACAC AACATTCCAA CCCTTGTTCA CATTCAAAAA GAAGTAAGGG	4800
AAAGGATTAT CCTTGGCATT TGAATATTG AGTTTGTAGAA CCAAGCCATT AAAAAGAGCA	4860
AACATCATAT ACAGAAAGGG TAAATGGTC CACACTGCTG GATCCCAAAT CTTGTATTGA	4920
CCCTGTTTGT CAAAAAGAG GGTATCCGCT AAAAACCAGA TGGGAACGAT ATAGTGGCAA	4980
AGGAAATTTT CTAGGGTATA GAAATTAGTC GCAATGGGCG CCAAGAGGAA ATGGTAAATC	5040
ACACAGGTAA TCATGATACT CATGGTGACC CCACCTTTTA AGCGCAAGAG ACTTGGCCTT	5100
TGCCAATTTT CACCTACACG GCTCATAACC TTAGAAGAT AAAGGGTAAA AATAGTTACC	5160
AAGAGGTGG ACAGAACCGT GTAATAGAGA AGCATCCCAA AACCACCATG CTTAGTAATT	5220
TCAGATAAAA CTCCCGTAAA AGCCGCTAGA AACAAGAAGA TACGGCTATA AAATACAAGT	5280
TTATAGTGTT TTGACATGCT TAAATCTTCC TCACAAACTC TGATTTAAGT TTCATGGCAC	5340
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CGCGCGTCCC TTGTTTCAAA TCTTTTGGCG CACCTTTTAC TTTCAAGTCC TTGATGAGAG	5460
TTACTGTATC ACCATCAGCC AATTTATTTC CGTTGGCATC GATAGCGACA AGACCTTCTT	5520
CTACTTCTGC AACTTCAGCA GGATTCCACT CATGAGCACA CTCTGGGCAA ACCAGTAGGG	5580
CACCGTCTTC GTAGACATAC TCTGAGTTAC ATTTTGGACA ATTTGGTAAA TTGTTCATGG	5640
TTCTCTCCTA TCATCATTCA CTATTCCTTG AAAATCAAAA TTCTCTGAAC AGCAACTATT	5700
ATACCCTAAA ATCAGCATTT TGACAAATTT AGAAAAAAC CGATATCAAT CTATCGGCTT	5760
TTCTACATTT ACATTCCTTT TTCAGCTTCT GCTTTGATTT TTTCAACTAC TTCTTGAATG	5820
TTCAAACCAG TTGTATCAAG GTAGACAGCA TCCTCTGCTT GTTTGAGAGG AGAAGTCTCA	5880
CGATGACTAT CCTTGTAGTC ACGCGCAGCA ATTTCTTTT TTAGGGTTTC AAGGTCTGTT	5940
TCAATTCCCT TGGCAATATT TTCCTTGTA CGACGCTCTG CTCTCTCATC AACAGAAGCT	6000
ACTAGGAAAA TTTTCAATTC TGCTTGTGGC AATACAACAG TTCCAATATC GCGACCATCC	6060
ATGACAATCC CGCCTTGCTG GGCAATTTCT TGTGAGAG AAACCAGTTT CTCACGCACT	6120
TGAGGAATTG CTGCAATAGC AGAAACATGA TTGGTCACTT CATTTTCACG GATAGGATGG	6180
GTAAATATCCA CATCTCCTAC AAAACAAGC TGGTCTCCAG TTTCTGAACG TCCAAAGCTG	6240

336

ATTGGATGCT GGTCCAACAA GGCTAGAAGG GCTTCGACTT CTTCAACTCC TAATTGGTTC	6300
TTAAGAGCCA TATAGGTCGC TGCACGATAC ATAGCTCCTG TATCAAGGTA GGTGAATCCA	6360
AAATCCTTAG CAATAATCTT TGCAGCCGTA CTCTTACCGC TGGGAAGCAGG ACCATCAATA	6420
GCAATTTGAA TTGTTTTTCAT ATCGGCTCCT ATTTTATTTT TATAACATCA CCTGGATTAG	6480
CAAACCAAGA TCCTGTAGCC ATGTGCCCAG GATTCAAGGC CTCTAACTGA GCAATGGAGA	6540
TTCTTGCACG AGCGGCAATA GCTGCTTCCC CTTCTCCTGC GAGAACTTTA ATCGTTCCTT	6600
CAGGATTAGC AGCTTCTTCT GAACTACTAG AAGTAGATTC TGGCTCTGAA CTCTGCTCAG	6660
GCTGAGAACT ACTTGAAGAT GAGATTTGTA CTACACTGGC ATCAGAATCA TGAAAGCCTT	6720
TTAAGGCTGC TGTGCGATTA CTCCCCCCG ATGATAGATA GATGAGAACG ATGACCATCA	6780
CCACCACAAT TACAAAGAAA ATACTAGCTA GGATCGTCAA AATACGATTA GCCATCCTAT	6840
CAGCCCCCTCC GTGGTTTTCGA TGCCGACGCT CTGCTCTTGA TTCTTCTTGA TCATAGATAT	6900
CTTCTTGCCA CGGTTCTTTT GCCATACCTT ACTCCTTGTT TTTTTTACT TTTCTTATTA	6960
CAATATAAAT ATGAACATGA AAATCACACT TATACCTGAA CGATGTATCG CCTGTGGGCT	7020
TTGCCAACT TATTCTGATT TATTTGATTA CCACGATAAT GGAATCGTGC GTTTTTACGA	7080
TGACCCTGAC CAACTGGAAA AAGAAATTC TCCTAGTCAG GATATCTTAG AGGCTGTTAA	7140
AAATTGCCCA ACTCGCGCCC TGATTGGAAA CCAGGAAGCC TAAATCAATG GCGATAATCC	7200
ACTCCCTCTA GTTTAGCACA TTTCCATGTA AAATTATAGT CTTTTCCTT TATTTTTTTC	7260
TGTAATAATCA GGAAGGTCAC TTTTTCTTT GATAAGATAA AGTGGTCTTT TTTTAGTCTC	7320
TAAATAAATC TTACTGATAT ACTTGCCGAG AATCCCAATG GTCAAGAGTT GAATGCCTCC	7380
AAGAAAGAGA ATAACAGCCA TCAGAGAGGT CCAACCAGAT GTCGGATTGC CCAAAATGAG	7440
GGTCCGAACC ACAACAAAA AGGTCATCAG CAGAGAAAGA AAACAAGATA GGAGACCAGC	7500
TACAAAGGCT ATAATCAAGG GAAAATCTGA AAAATTAATA ATCCCTTCAA TGGAGTAGAA	7560
AAAGAGTTGC CTAAAACCTC AACTTGTCTT GCCAGCCTGC CTTTCGACAT TTGGATAGTC	7620
CAAATAGTAG GTTTTGAAAC CCACCCAGGC GAAGAGCCCC TTTGAAAAAC GATTGGACTC	7680
GGTCAAGCTT AAAATGGCAT CGACTACAGA CCTTCTCATC ATACGAAAAT CACGGACACC	7740
CGACGGCAGA GCTACTGGGC TGATTTTTTG CATGAGGCGA TAAAAGAGAA CAGCACAGAA	7800
ACTGCGAAAG AAGGGTTCTC CCTCCCGACT AGTTCTCCGT GTCCCAACGC AGTCCAAGTC	7860
TACATTTTTG TCTAATACAT TTTTCATCTC AAACAACATA CTAGGAGGAT CTTGGAGGTC	7920
TGCATCCATC ACCACCACCA AATCTCCTGT CGCATATTGC AAGCCTGCAT AAAGGGCTGC	7980
TTCTTTGCCA AAATTTGAG AGAAAGAAAT ATAATGGACT GCCGGATTTT GCTCCCGATA	8040

337

GGCCTTTAAG AGTTCCAAGG TCCCATCACT TGATCCATCA TCGACAAAGA CATACTCGAT	8100
TTCTGTTTCC AAATCTGGAA GTAAAGCTTC CAGAGCCTGA TAAAAAGAG GAAGTACTTC	8160
CTCTTCGTTT AAACAAGGA CGATGATTGA AATCATCATC TTAGTCTTCA AATCCATTG	8220
GATGCTTGCT TTGCCAACGC CATGCGTCTT CACACATTG GGTGATGTCG AGTTCTGCTT	8280
CCCAACCGAG TTCTGCTTTA GCTTTTGCCG GGTCTGAGTA GCAGGCAGCG ATATCACCTG	8340
GGCGACGTTC TACGATGCGG TAAGGAATAG GACGGCCAC CGCTTTTTC ATGTTTGGGA	8400
TAATTTCAAG AACTGAGTAA CCTTTACCAG TTCCAAGGT ATAAACGTTT AGTCCTGAAC	8460
CTTTTGGAT TTTTTCAAA GCTGCAACGT GACCCCTTAC CAAATCGACA ACGTGGATAT	8520
AGTCACGAAC ACCTGTTCCA TCTTCCGTAT CGTAATCGTC TCCAAACACT TGCATTGCT	8580
CTAATTTTCC AACGGCTACT TGAGTCACAT ATGGCAAGAG ATTGTTTGGGA ATACCGTTTG	8640
GATTTTCTCC CAAATCACCA CTCTCATGGG CTCCGATTGG GTTAAAGTAA CGAAGCAAGA	8700
CAACATTCCA TTCTGAGTCT GCTTTGTAAA TATCAGTCAA AATTTCTCT AGCATGAGCT	8760
TAGTACGACC GTATGGGTTG GTCAGTAAA GTGGGAAATC TTCCAAGATG GGCACTGTGT	8820
GCGGATCCCC GTAAACTGTC GCAGAAGAAC TGAAGATGAT GTTTTACAG TTGTTTCTT	8880
CCATGGCTTT CAAAGGCTG ACAGTTCAG CGATATTGTT GTCATAGTAG GCAAGAGGGA	8940
TACGTGTGA TTGCGCAACA GCCTTCAAAC CAGCAAAGTG AATGACACCA GTCGGTCTT	9000
CCTGCTTGAA AATATCTCTG AGGGTATCTG TGTCACGAAT ATCTGCCTCA TAGAAAGGAA	9060
TCTCAACTCC TGTGATTCCT TCAACAACCT CTAACCTCTT ACGATTGCTA TTGACAAGAT	9120
TATCCACCAC AACAACTGA TGACCTGCTT GGATCAATTC AATAACAGTG TGGGTTCCT	9180
TAAAACCGGC ACCACAGTT ACCAAAATCT TTTCTTGCAT CTTTTTCTT CGATTCTCAG	9240
ATTATTTTTT CTATTTTAC CATTTTGGAC AGGGAATGTC ATTTGCCATC CTAAACTACC	9300
TGATAAAATT TCAGTAAAT GCTTATACTC TTCGAAAATC CAATTCAAAC TACGTCAACG	9360
TCGCCTTGCC ATGGGTATGG TTAAGTACTT CGTCAGTTCT ATCCACAACC TCAAAACAGT	9420
GTTTTGAGCT GACTTCGTCA GTTCTATCCA CAACCTCAA GCAGTGCTTT GAGTAACCCG	9480
CGGCTAGTTT CCTAGTTTGT TCTTTGATTT TTATTGAGTA TTATTGCTT TTTACTCGTT	9540
TGACATAGTT TTCAATTGGG TAATTTAGAG GGTCCAAGGT CAACTCCTTG TCTTGATCA	9600
GTTGGGCTAG ATGGTAACCA ATGATAGGAC CAGTTGTGAG GCCTGATGAA CCTAGTCCAC	9660
TGGCTGCATA GACACAGTT AAGTCAGGCA CCTGCCAAA GAAAGGAGAG AAATCACTGG	9720
TGTAGGCACG GATTCCAACA CGCTCAGATT TTGAAGTAGC TTCAGCCAAA ATCAGATAGT	9780

338

GAGTCAAGGT	GGCCTCCTCC	ATTTGTTGGA	GCAAGGTTTC	ATCTACCGTC	AAATCAAATC	9840
CCATGTCATT	TTCGTGGGTA	GCGCCTAAGG	ATAATTTCCC	ACCTGCAAAG	GGAATCAAAT	9900
CCCCTCCCC	TTCTGGCATG	ACAACAGGGT	AATCTTCCAT	GTCTTGGGCA	AGCTGATAAT	9960
CTCGTAGTTG	TCCTTTTGA	GGACGGACAT	CCACTTCATA	ACCTAAAGGC	TCTAACATGT	10020
CCCCAACCA	AGCTCCCGTC	GCCAAAATAA	CCTGCTCAAA	CTCCTCTTCA	CCAATCTGGT	10080
AGCCTGATGC	TAACGGTGTC	AGAGTCACTT	TTTCTTTGAC	CAGCTTGACA	TGACTGACTT	10140
CCAGCAAACG	AGTCACTAAA	AGTTGGCCAT	CTACTCTCGC	TCCACCAGAA	GCATAGAGCA	10200
GGCGGTCAAA	TCCCTGCAAA	CCAGGGAATA	ATTCAATTAGC	TGAGGCTTGG	TTCAGAATGG	10260
CTAATTGCCC	TATCAAGGGA	GATTCTTCTC	TGCGCTGGAG	GGCCAGTTGA	TAAAGTTCTT	10320
CCAAATTGGA	TTTCTCTTTT	TTCAAGAGAA	AGACTCCCGA	ACGCTGGTAA	AAGTCGATTT	10380
CTTGTCCTGA	TTTCTCTAAA	TCAGCTAATA	AATCCACATA	AAAATCAGCC	CCCAAGCGCG	10440
CCATCTTGTA	CCAGGCTTTA	TTACGGCGTT	TGGAACCA	AGGACTGATA	ATTCTGCTG	10500
CGGCCTTGGT	GGCTTGACCT	TGCTCATGGT	CAAAAACGGT	CACCTCTAGG	TCACTTTCTC	10560
TCGAGAGGTA	GTAGGCAGCT	GTTGCTCCCA	CAATTCCTGC	TCCAATAATG	GCAACTTTTT	10620
TCATTGTCTT	CACCTTCTAA	CTAGATATGA	TGGAAGGAT	TGGTTGATGC	CTGACTAGGC	10680
AAGATATCAA	TAGACCACCC	CTTATCTTCC	TTCCATTGAC	TAAGAAGTGC	TGCGATTTTT	10740
TCTACAAAAA	TCACTTCGAT	ATAGTGACCT	GGGTCCAATG	CAAGCAACCC	ATCAGATAGC	10800
ATATCCTGAG	CAGTATGGTA	GTAGATATCA	CCAGTGATAT	AGACATCTGC	CCCCTTTGCC	10860
AAAGCATCCT	TATAGAAAGA	CTGCCCCTT	CCACCACAAA	TTGCTACTCT	TGAAATAGGC	10920
TTCTGCAAAT	CATCCTCTTG	ATAATGCACC	ATTGGAAGGC	TATCTAGGTC	AAAGACTTGC	10980
TTGACCTGTT	GGGCCAATTC	CCAAAATGTC	TGAGGCTGAA	TATTCCCAAT	ACGTCCAATT	11040
CCACGTTCTG	GACCTGTTTC	CTGCAGATAA	GTCGTCTCCT	CGATTCCTAG	CATCTGACAA	11100
AACCAGTCAT	TGAGCCCATT	TTCAACGATA	TCAATATTGG	TATGGCTGAC	ATAAACTGCG	11160
ATATCATGCT	TAATCAGGTC	GATGTAAATC	TGATTTTGCG	GACGGCTGGC	AAGCAAGTCC	11220
TTGATAGGAC	GAAAGATAGG	CGCGTGCTTG	ACGATAATCA	AGTCCACACC	CTTTTCAATG	11280
GCCTCTGCCA	CTGTCTCTTC	ACGAATATCG	AGGGCAACCA	TGACCCCTTG	GATACCCCTG	11340
TCTAAAGTGC	CAATTTGCAG	ACCACGGCTG	TCTCCCTCCA	TAGAAAATTC	CTGAGGGCAA	11400
AAGGCTTCAT	AAGCTTGGAT	CACTTCACTT	GCTAACATGG	AGCACCTCCT	TGATAGCTTG	11460
AATCTTATCT	ACTAGAACTT	GACGTTCTTC	CAGATTTTTT	TCTGGGATTT	GTCCGAGGGC	11520
GAACCTTAGC	TTCTCAGCTT	CTTTTTGCCA	TTTTTGGACA	AATACTGGAC	TGACTTCTTT	11580

339

GGACAAGAAG GGACCAAAGC GAACATCACT GGCTGATAGC TTCATTTGTC CTGCTTCCAC	11640
CACCAAAATC TCATAAACT TTCCAGCTTC TTCTAAGATG CTTTCTGCTA CAATCTGGAA	11700
TCCATGATCC TGTAGCCAGA TACGCAAGTC GTCTTCACGA TTATTGGGCT GGAGGATCAA	11760
ACGCTCTACA TTAGCTAACT TCCCCAAACC TTCTTCTAAA ATCCTAGCAA TCAAACGACC	11820
ACCCATGCCA GCAATGGTAA TGACAGACAC TTGGTCAGTC TCTTCAAAAG CTGCCAAGCC	11880
ATTGGCTAAA CGGACTTGGA TTTTCTCCTT TAGGCCGTGA GCCTCAACAT TTTTAACCGC	11940
AGACTGATAG GGACCTTCCA CCACCTCACC TGCAATAGCG CTTTGTATTT GGCCTCTCTC	12000
AACCAACTCG ATAGGCAGAT AAGCATGGTC ACTTCCCACA TCTAGTAAAA TAGCCCCCTG	12060
TGACACAAAG GAAGCTACCA ATTCTAATCT CTTTGAAATC ATCTTCTCTC ACTTTCCTAA	12120
ACTCTATTAC CTCTATTAT ACCACATTTT AATCTTCAAC TTCCAGTAA TATAAGCACC	12180
TCTGGCGAAA GAAGTTTCAA TGTCTTAAAG TAATAAGTGA ATCCAATTGA AAGATTTTAA	12240
ACAAATTTGCA AAAATGTCAA AAAATAAAAA ATAAACAGTT TATTCAGAAA ATTCTTGACA	12300
TATAAAAAACA CATGGTAGAA TATAATTAGA AAGTTAGAAA AAATAAAAGT TTGACTAAAA	12360
TTTGTATTTG AAGGTGGTGT TCAGATAAGA AATTTAGTCA GACGAACCAC GAATTTGCTC	12420
TATGCTTTCT GGAATTTATC ATAACAGGAG GATACAGTCA TGGAACAAAC ATTGTTTGAA	12480
TTAGAACTAC TTCCAGAGGA AGATATCATT GTCACAGGTC TCCCTAAGTA TTGTCTTTT	12540
ACTTGTTTAA TTACAGGTCG CTAGTTATAT TTTATATAAA ATAAGTAGCT TTACTTACGG	12600
AATAGGCTAG TGCTGTGTCT CTAGCCTATT TTAATAATTA GGAGTTTGTT ATGGATTTAT	12660
TAGAGAAAGA ATGTTTAAAA TGTGATAAAA ATTTCCAACA GGGTGATATT TGGAAATTACT	12720
ATTATTTATC AGATAAGATG CCTGCACAAG GGTGGAAAAT ACACATAAGC TCCCAAATAA	12780
AAGACGCTGT AAATATTTT AAGATTGTGT ATAAACTATC CCAACTAAAT AATTGTAGCT	12840
TTAAAGTTGT TAAAAATTTA GAGGAATTAA AAAAAATTAA TTCCCCTAGG GAAATGAGCC	12900
CTACTGCTAA CAAATTTATA ACTCTATATC CTAAGTCAGA ATCTGAAGCT AAGAGTATGA	12960
TTTGTAATCT TACGAATAGA CTGTCAGAAT TTAAGGCTCC AAAAATACTA TCTGACTATC	13020
AATGTGGAAT GCATTCTCCA GTTCATTATA GATATGGGGC TTTTTTAAAA AAACAAGCTT	13080
ATGATGAAAA AATAAAAAA GTCATCTATT TATTGCTAGA TGAAAAAGG AAGAAGTATG	13140
TAGAAGATAA GAGACAAAAT TTCCCTAGTC TTCTAGCTG GAAAATGGAT TTATTTTCAG	13200
AAGAAG	13206

(2) INFORMATION FOR SEQ ID NO: 34:

340

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13104 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CCGATCCAG CGAAAAATAT GCTCTTTGAT GCTGTAAGTG GTCAAAAAGA TGCTAAAACA	60
GCTGCTAACG ATGCTGTAAC ATTGATCAAA GAAACAATCA AACAAAAATT TGGTGAATAA	120
AAAATTTGTT CAAGGGGGGT GGAAATCAAA TCCCCCTTG AATTATCAA TAGAGACACA	180
AATAATTTAG CTTTCTTATA AAAAAGTAGT ATCCTATGAA AGGAGTTAAT ATGGAAAAGC	240
AACAACCTAG TAAAGCAGCC CTGCTGTCTA TCATTCCTGG GTTAGGACAG ATTTACAATA	300
AACAAAAAGC CAAAGGTTTT ATCTTCCTTG GTGTAACCAT CGTATTTGTC CTTTACTTCC	360
TAGCACTTGC AACCCCTGAA TTGAGCAACC TCATCACTCT TGGTGACAAA CCAGGTCGTG	420
ATAATTCCTT CTTTATGCTG ATTCGTGGTG CCTTCCATCT AATCTTTGTA ATCGTTTATG	480
TACTCTTTTA TTTCTCAAAT ATCAAAGATG CACATACGAT TGCAAAACGC ATTAACAATG	540
GAATTCAGT TCCACGCACA CTCAAAGACA TGATCAAAGG GATTTATGAA AATGGCTTCC	600
CTTACCTCTT GATCATTCCA TCTTATGTTG CCATGACCTT CGCGATTATC TTCCCAGTTA	660
TCGTAACCTT GATGATCGCC TTTACCAACT ACGACTTCCA ACACTTGCCA CCAAACAAGT	720
TGTGGACTG GGTGGTTTG ACCAACTTTA CAAACATTTG GAGCTTGAGT ACCTTCCGTT	780
CTGCCTTTGG TTTCTGTTCTT TCTTGGACTA TCATTTGGGC TTTGGCAGCT TCTACTTTAC	840
AAATCGTAAT TGGTATCTTC ACAGCTATCA TTGCCAACCA ACCATTTATC AAAGGAAAAC	900
GTATCTTTGG TGTATTTTTC CTTCTTCCTT GGGCTGTCCC AGCCTTCATC ACTATCTTGA	960
CATCTCATAA CATGTTTAAC GATAGTGTCTG GTGCTATCAA CACTCAAGTA TTGCCAATCT	1020
TGGCTAAATT CCTTCCTTTC CTTGATGGAG CTCTTATTC TTTGAAAACA GACCCAACCT	1080
GGACTAAGAT TGCTTGATT ATGATGCAAG GTTGGCTCGG ATTCCCATAC ATCTACGTTT	1140
TGACCTTGGG TATCTTGCAA TCTATTCCTA ACGACCTTTA CGAAGCAGCT TATATTGACG	1200
GTGCCAACGC TTGGCAAAAA TTCCGCAACA TCACTTTCCC AATGATTTTG GCTGTTGCGG	1260
CACCTACTTT GATTAGCCAA TACACCTTCA ACTTTAACA CTTCTCTATC ATGTACCTCT	1320
TCAATGGTGG AGGACCTGGT AGTGTCGGAG GTGGAGCTGG TTCAACCGAT ATCTTGATCT	1380
CATGGATCTA CCGTTTGACA ACAGGTACAT CTCCTCAATA CTCAATGGCG GCAGCTGTTA	1440
CCTTGATTAT CTCTATCATT GTCATCTCAA TCTCTATGAT CGCATTCAAG AAACCTACACG	1500

341

CATTTGATAT GGAGGACGTC TAAGATGAAT AACTCAATTA AACTCAAACG TAGACTGACT	1560
CAAAGCCTTA CTTACCTTTA CCTGATTGGT CTATCAATTG TAATTATCTA TCCACTGTTG	1620
ATTACCATTA TGTCAGCCTT TAAAGCAGGT AACGTCTCAG CCTTTAAACT AGATACTAAT	1680
ATCGACCTCA ATTTTGATAA CTTTAAAGGC CTCTTCACTG AAACCTTGTA CGGTACTTGG	1740
TACCTCAACA CTTTGATTAT CGCCTTAATT ACCATGGCTG TTCAAACAAG TATCATCGTA	1800
CTTGCTGGTT ATGCTTACAG CCGTTACAAC TTCTTGGCTC GTAAACAAAG TTTGGTCTTC	1860
TTCTTGATCA TCCAAATGGT GCCAACTATG GCCGCTTTGA CAGCCTTCTT CGTTATGGCG	1920
CTTATGTTGA ACGCCCTTAA CCACAACCTGG TTCCTCATCT TCCTCTACGT TGGTGGTGGT	1980
ATCCCGATGA ATGCTTGGCT CATGAAAGGC TACTTCGATA CAGTGCCAAT GTCTTTAGAC	2040
GAATCTGCAA AACTAGACGG TGCAGGACAC TTCCGCCGCT TCTGGCAAAT TGTTCACCA	2100
CTTGTTGCGC CAATGGTTGC CGTACAAGCT CTCTGGGCCT TCATGGGACC TTTCGGGGAC	2160
TACATCCTCT CTAGTTTCTT GCTTCGTGAG AAAGAATACT TTACTGTTGC CGTAGGCTCT	2220
CAAACCTTCG TTAACAATGC GAAAACTTG AAGATTGCCT ACTTCTCAGC AGGTGCTATC	2280
CTCATCGCCC TTCCAATCTG TATTCTCTTC TTCTTCTTAC AAAAGAACTT TGTTCAGGA	2340
CTTACAAGTG GTGGCGACAA GGGATAATTT ATCCCGCCA CCCTTTTCA TTTTATACTC	2400
TTCGAAAATC TCTTCAAACC ACGTCAGCTT TATCTCCAAC CTCAAAGTTG TGCTTTGAGC	2460
AACCTGTGGC TAGTTTGAC TTTGATTTTC ATTGATTATT AGCAATTGTC ACTGTAAATA	2520
ATATCCTTGT AGCAAGCAAT TTTTCTCCTA GACTTGAAAT AAAGCGCATT TCTCTATATA	2580
ATAATACTCA TATAGAAAAC ACCTTTTAGA AAGATACCTA TGCTTCCATA TCCATTTTCC	2640
TATTTTTCOA GTATTTGGGG GGTTCGTAAG CCCCTGTCCA AACGTTTCGA GCTCAACTGG	2700
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CAAACAGCT CCCAGGAGAC CTATCCGCTA GAAACTTTTA TCGATAATGT CTATGAACCT	2820
CTGACAGATA AGGTTGTCCA GGATCTCTCT GAACATGCTA CAATTGTCGA TGGCACATTA	2880
ACTTATACTG GAACAGCTAG TCAAGCCCCT TCTGTTGTGA TTGGTCCAAG TCAAATCAAG	2940
GAATTACCTA AGGACTTGCA ACTGCATTTT GATACAAATG AGCTAGTCAT CAGCAAGGAA	3000
AGCAAGGAAC TGACCCGCAT CTCTTACCGA GCCATTGAGA CTGAGAGTTT CAAAAGCAAA	3060
GACAGCTTGA CCCAAGCAAT TTCTAAAGAC TGGTACCAAC AAAATCGTGT CTATATCAGC	3120
CTCTTCCTAG TTCTCGGTGC GAGCTTCCTC TTTGGTTTGA ATTTCTTTAT CGTCTCTCTT	3180
GGAGCTAGCT TTCTCCTTTA TATCACCAA AGATCACGCC TCTTTTCATT TAATACCTTT	3240

342						
AAAGAGTGCT	ACCATTTTAT	CTTGAAGTGT	TTAGGATTGC	CGACTCTGAT	TACACTTATT	3300
TTGGGATTAT	TTGGCCAAAA	TATGACAACC	CTGATTACTG	TACAAAATAT	TCTTTTGTGT	3360
CTGTATCTGG	TCACTATCTT	TTATAAAACA	CATTTCCTGT	ATCCAAATTA	CCATAAATAG	3420
GAGATTTTTA	TGCCCCGTAC	GATTAAAGAC	GTGGCCAAGG	CTGCTGGTGT	TTCGCCTTCA	3480
ACCGTAACCC	GTGTTATTCA	AAATAAATCA	ACCATTAGCG	ACGAAACAAA	AAAACGTGTT	3540
CGCAAAGCTA	TGAAGGAAGT	CAACTACCAC	CCAAACCTCA	ACGCTCGTAG	CTTGGTAAGC	3600
AGCTATACTC	AGGTTATCGG	ATTAGTTCTT	CCTGATGACT	CAGACGCCTT	CTACCAGAAT	3660
CCTTTCTTTC	CATCGGTTCT	ACGTGGCATC	TCTCAAGTCG	CATCTGAAAA	CCACTATGCC	3720
ATTGAGATAG	CAACAGGGAA	AGATGAGAAG	GAGCGTCTCA	ACGCTATTTT	ACAAATGGTC	3780
TACGGCAAGC	GTGTAGATGG	GCTAATTTTT	CTCTATGCCC	AAGAAGAAGA	CCCTCTCGTA	3840
AAACTCGTCG	CAGAAGAACA	GTTCCCTTTC	CTTATCTTAG	GTAAATCTCT	ATCTCCTTTC	3900
ATCCCACTTG	TCGACAACGA	CAATGTTCAA	GCTGGTTTTG	ATGCGACTGA	ATATTTTCATC	3960
AAAAAAGGCT	GCAAACGCAT	TGCCTTTATC	GGAGGAAGTA	AAAAGCTCTT	CGTGACCAAA	4020
GACCGTTTAA	CAGGCTATGA	ACAGGCGCTT	AAACATTACA	AACTTACCAC	TGACAACAAT	4080
CGCATCTACT	TTGCCGACGA	GTTTCTGGAA	GAAAAGGGCT	ATAAATTTAG	CAAGCGATTA	4140
TTCAAGCACG	ATCCACAAAT	TGATGCTATC	ATCACAACCG	ATAGCCTCCT	AGCTGAAGGT	4200
GTTTGTAAGT	ATATTGCCAA	ACACCAGCTG	GATGTCCCTG	TTCTCAGCTT	TGACTCGGTT	4260
AATCCCAAGC	TCAACTTGGC	AGCCTATGTC	GATATCAATA	GTTTAGAGCT	TGGTCGTGTT	4320
TCCCTTGAAA	CTATTCTCCA	GATTATTAAT	GATAATAAAA	ACAATAAACA	AATTTGTTAC	4380
CGTCAATTGA	TCGCCACAAA	AATTATCGAA	AAATAAGAGA	CTGGGCAAAA	AGTCGTAAAA	4440
AGCAAAAACG	CATACTATCA	GGTATTGAAA	AAACTTGATA	CTATGCGTTT	TATTGTGGGA	4500
AGATTTACTT	CCTTTTCTAC	TGAAATTGAG	TCTTTTCCCA	AGATCTTTTT	ATACTCAATG	4560
AAAATCAAAG	TGCAAAGTAG	GAAGCTAGCC	GCAGGTTGCT	CAAAACACTG	TTTTGAGGTT	4620
GTAGATGAAA	CTGACGAAGT	CAGTAACCAT	ACCTACGGCA	AGGTGAAGCT	GACGTGGTTT	4680
GAAGAGATTT	TCGAAGAGTA	TTAATCACTA	ATTATCTATC	TCAACAAATC	TTCTAGAAAT	4740
ATGAACATTT	TCCGAGACAG	AGACAAAGGA	GCTTGGATCC	ACTTGTGTCA	TAATCTGTTT	4800
AAATTCATTA	AACTCTGCAC	GTGTAATGAC	AGTGATTAAA	ACTGCCTTTC	TCTCGTGATT	4860
ATAGGTTCCCT	TCTGCATCGT	GGATCATGGT	TGCTCCGCGG	TGCAATTTTT	TATGGATTTT	4920
TTCAATTACC	TTCTCTGGAT	GATTTGTCAC	AATCATGGCC	TGCATACGCT	TTTGCTTAGT	4980
AAAGACTGCG	TCTGTCACAC	GGCTAGAGAC	AAAGATGGTA	ATCATAGAAT	AAAGAGCGTA	5040

TTTCCAACCA	AAGGTCAAAC	CTGCTATCAG	CATGATAGTT	CCATTTACCA	AGAAAGAAAT	5100
ACTACCGACA	TTCTTACCCG	TTTTCTTACG	AATAGTCAGG	CTGACGATAT	CCGTCCCACC	5160
ACTGGAGATA	TTGTTTCGAA	GAGCAAAACC	AATCCCCAAA	CCCATAACAA	CACCCCCAAA	5220
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GGAACTCATA	GATACCGTGA	TAAAGGTAAA	GACGGTGAAC	TTATGGCCAA	TCTGATACCA	5340
AGCTAAGACC	ATCAAAGGGA	AGTTAATGGC	GTAAGAAGCTT	AGCGAAATCG	GAATATGAAA	5400
ACCAAACCAG	TGATTACTCA	AGGCAGAGAT	AATCTGTGCC	AGACCTGTTG	CACCACTCGA	5460
ATACACATGC	CCTGGTTGGA	AAAAGAAATT	AACTGCTACT	GCTGATAAAA	AACCATAGAC	5520
CAGAGAGGCC	GAAATCTTCT	CATCATACTT	TTCTCGAGAG	ATACTTTGTA	AGACACGTAA	5580
AATTTTTATC	TGATAAGCAA	AGCGGCGCAG	ATAATAGCGC	CACCGCTTAA	TTCGTTTTGT	5640
TTGTTTCATC	TTCTTCTACT	TGTAAGCTGA	GTTCTCTTAG	TTGTTTGAGA	GCGACTGTTG	5700
ATGGAGCTTG	TGTCATTGGG	TCAGTTGCCT	TGTTGTCTCT	AGGAAAGGCA	ATGACTTCAC	5760
GGATATTTTC	TTCTCCAGCA	AGCAACATGA	CAAAACGGTC	AAGCCCGATA	GCCAAACCAC	5820
CGTGTGGTGG	GAAACCATAG	TCCATGGCTT	CAAGAAGGAA	ACCAAACCTG	TCATTGGCTT	5880
CTTCAGTTGA	GAAACCAAGA	GCCTTGAACA	TGCGTTCTTG	AAGGTCTTTT	TGGTTGATAC	5940
GAAGGCTACC	ACCACCAAGC	TCATAACCGT	TCAAGACGAT	ATCGTAAGCA	ATGGCACGAA	6000
CCTTAGCCAA	ATCACCTTCT	AATTCATGAG	CAGTCTCTTC	CTGTGGAAGT	GTGAAAGGAT	6060
GGTGGGCGCT	CATGTAGCGG	CCTTCTTCTT	CAGACCATTG	AAACATCGGC	CAGTCAACCA	6120
CCCAAAGGAA	GTTGAACTTA	TCATTATCAA	TCAAGCCAAG	CTCTTTAGCA	ATACGTCCAC	6180
GAAGGCACCC	CAGTGTGCA	TTAGCCACTT	CAAGCGTATC	CGCCACAAAG	AGAACCAAGT	6240
CCTTATCTTC	AAGAACAAGC	GCTGTGTGCA	ATTCTTCTTG	GATACCAGTC	AAGAACTTGG	6300
CAACTGGTCC	GTTTAATTCT	CCATCAACCA	CCTTGACCCA	AGCAAGACCT	TTGGCACCAT	6360
ACTGTTTGGC	TACTTCCGTC	ATCTTGTCGA	TGCTTTTACG	TGAATAGTTG	TCCGCAGCTC	6420
CTGTGACCAC	AATCGCTTTT	ACAGCAGGTG	CTTCTGAAAA	GACTTTAAAG	TCTACACCTC	6480
GGACCACTTC	TGTCAAGTCC	TGAAGCAACA	TGTCAAAACG	AGTATCTGGC	TTGTCAGAAC	6540
CGTAAAGAGC	CATAGCATCA	TCGTATTTCA	TACGAGGGAA	TGGTAGCGTT	ACTTCGATGC	6600
CTTTTGTTTC	CTTCATCACG	CGCGCGATCA	AGCTTTCTGT	AATATCTTGG	ATTTCTTGCT	6660
CAGTAAGGAA	GGACGTTTCC	AAGTCGACCT	GAGTAAATTC	AGGCTGGCGG	TCTCCACGCA	6720
AGTCCTCGTC	ACGGAAACAT	TTAACGATTT	GGTAGTAACG	GTCAAAACCA	GCATTCATCA	6780

344					
AGAGCTGTTT	CGTGATTGT	GGACTTTGAG	GAAGAGCGTA	AAAATGCCCC	TTATTAACAC
6840					
GAGACGGCAC	TAAATAATCA	CGCGCCCTT	CAGGCGTTGA	CTTAGAAAGG	AATGGTGTCT
6900					
CCACGTCGAT	AAACTCCAAC	TCATCCAAGT	AGTTGCGGAT	AGAGTGGGTC	ACCTTGGCAC
6960					
GAAGTTTAAG	ATTTTCCAAC	ATTTCTGGAC	GACGAAGGTC	AAGGTAACGG	TAACGCAAAAC
7020					
GTGTATCGTC	ATTTGCCTCA	ATGCCATCCT	TAATCTCAAA	TGGTGTGTGC	TTAGCTGTGT
7080					
TAAGCACAAT	AAGAGCTGTC	ACGTTTAACT	CAACCGCACC	AGTTGGCAAC	TTATCATTTGG
7140					
CTTGTCACGC	GCAGCGACCT	GACCAGTCAC	CTCAATAACA	AATTCGCTAC	GAAGGcTTTC
7200					
AGCTGTTGCC	ATAACCTCTG	CAGATACTTT	TTCAGGGTTG	ATAACCAACT	GCATGATTCC
7260					
TTCACGGTCA	CGAAGATCGA	TAAAGATCAA	ACCACCAAGG	TCACGACGAC	GGCCAACCCA
7320					
TCCTTTCAAG	GTTATTCTTT	GTCCGATGTG	TTCCTCACGA	ACACGACCAG	CATACATACT
7380					
ACGTTTCATT	ATTTCTCTCC	TCTTTTATTC	TGTTACTATT	TTACCATAAA	AGCGCAGCTC
7440					
TTCATGAAAA	TCATCAGAAA	AGTTTGCCAG	TCTTTAAAAG	TCAGGTGAAA	GCCCTAAAAA
7500					
TTAGCGCTAA	TACTCTTCGA	AAATCTCTTC	AAACCACGTC	AGCGTCGCCT	TACCGTATGT
7560					
ATGGTTACTG	ACTTCGTCAG	TTTCATCTAC	AACCTCAAAA	CCATGTTTTG	AGCTGACTTC
7620					
GTCAGTTCTA	TCCACAACCT	CAAAACAGTG	TTTTGAGCAA	CCTGCGGCTA	GCTTCCTAGT
7680					
TTGCTCTTTG	ATTTTCATTG	AGTATAATAC	AAAAATCCGA	TGAACTTCAC	CGGACTCTTT
7740					
TATTTTGAAT	TTTTGCCTGC	TTTACGCTTT	TCAGCGATTT	CGGCTGCCTT	TCGAGGCAAG
7800					
ACAATTTCCG	TTATGTAAGC	CGTCCCAAAA	CGCAGTACAC	CTGCAATAGG	AGCAAAGACA
7860					
ACTGCTAGAT	AGTTATAGAA	GAAATCGCCT	TTGAAGGCAT	AAGCTAGCGC	TCCAATGATG
7920					
AAAAATAGAA	CGACTGCCTG	AATCACTGCT	AATAAAATTA	CTCGTTTCAT	GTGACCTCCT
7980					
GACTCTATTA	TAGCATGAGA	ATCATCAAAA	AGCCGACTAA	ATTATTCAAA	GCGTGAAGAG
8040					
AAATACTGTA	GACCAGACCT	TTTCTGCTAA	TGTAAGCCAA	ACCCAAACTA	AAACCAAGGC
8100					
TAAAATAGAC	AAAAAATTGT	TGCACATCAC	CTGGAAAATG	AATCAAGGCA	AATAGAAGAC
8160					
TAGATACCAG	AAGAAAAATC	AGGGTTCGTT	TACTATTGTC	CTGCTTAGGA	AAGAGATAGC
3220					
GTGCTAACAT	CCCTCTAAAA	ACAATCTCTT	CCGTCAAAGG	AGCAAAAATA	ACCACAGCAA
8280					
AGAATGAGAA	AAGTGTTGA	GACAAGGTCA	AGTCTGTCGC	TATTTGCTGA	TTTACTGAAG
8340					
GATCATCTGG	CAAGAAGAAT	TGAACGACCA	GAGATAAGAA	CCAAACCAAG	ACAGGAAGCC
8400					
AAATAAATCG	ATTAAAGCCG	CTCTTCTCAA	TATGAACAGG	AGCCTTCTGA	TACCATTTGT
8460					
AAATGCCGTA	CACATATACT	CCAGCCAAGG	CCACATAGAG	TAGAGTAACA	GCATAGGGTG
8520					
AAGCGCCTAA	AGCAAGCGAC	GCAGTCGCGA	GCCCCTGAAT	AAAGCCATAG	ATAAATAAAA
8580					

345

AGGATAGAAG GGCTAGAAGA ATCCAGCCAA GGTTTTAAAG TAATTTTCATA GATAACTCCT	8640
TTATTTGAAA TAACGTTTTA CCATAGGTAA CTGCATCACA TTGATATAAA CATGGATGGC	8700
TCCTACAAGC AAGAAAGCTA GTAACCTGAAT CTCTCCTGTC AAGAAAGAAA TGATAATAAG	8760
AAAAATATAT AAGGCTGGTA AGACATATTG GTGTAATTGG AATAAAATTC GAAAACTCTG	8820
TTCCAAATTA GCCTGACGCT CCCCTTCATC ATAAGAATTT ATATAGTTCA AGACATCCTT	8880
TGGTGTAGCG AAAAAATCCA AATCAAACCTG ACGAACAATC GCAATGGTTT TAAAAAGAGA	8940
TTTTTGAGCG ACTAAGAATA CCACAAAGAG TAAGAAAGAA AGGAAAAATG TTTGAGGGTT	9000
TGTATGCAAT ATAATCACCT CACTTAATGA AATAAAAATA GCCAATGGAA TCGCTACACC	9060
TGTAATATTA AAAGCAATGG TTCCAAACTC AAGATTCCGA TACATTTGCA CATAATAGGT	9120
TTCAATTCAGA TCGTCATCCA TTTCTCTTTG ATACAAAGAA TGAAATTTTC TGCTTTTCTT	9180
TAAGAAATTG AAAGTCAAAA ACATACTAAT GAAACCTATC AGTAAACAAA TAGCTGATAT	9240
CCATGGCATC AAGGCTTTTA CATCTAAAAT AATTTTCGTGG GATTCGACAC GTGCCTTAAA	9300
CATCCCTACA AACATGCCCA AGAACCCCCC AAGACAATAG ACATCAAAAA TAACAATCTA	9360
CGTTTCTTTT TCATATTCAT TCTCCTTTTT CACTTGCTAG ATTTTTGGAT TTCTTTTCAA	9420
TCCATTCAAT TACTGGGATG AGAGCAAAGT AGACCCAAAC AAATTGGTCG CTTTGATAGG	9480
GATTAAACCA GCTTAGGTCC ATCCCAATCA GTAGAAATAC GCTGACTAAT AAAGCTATGA	9540
CCACTACATA ATAAATCACT TTATACTTGT TCATCACTCG TCCTCCTCCA AACGAAATAC	9600
CGATTGCACT GTTTCGTGA AAATTTGAGA TATTTTCAGG GCAATGATAA TGGATGGGGT	9660
GTACTCATCC CGTTCTAGTA GGCTAATGGT CTGTCTGGAA ACCCCTGCCA GTTTGGCTAG	9720
GTCGGTTTGA TTGAGACCAT CGCGAGCTCG AAGCTCTTTT AGACGATTTT TTAGTTGCAT	9780
GTTACACACC TACTCTCCGT CAAATTCAAC GGTTTGATA TCCTCAATAC GTTGCAACTT	9840
GAATTTTCT TTTCCCGTAT TATCTACACG TCGTAGCTTT ACCCATTCCT CATCAACATC	9900
CACAACTTCC CAGTTATCTG GCCCAATATA CACTCCCGTT ATAATTGGTT CCTTTCCAAT	9960
CATTTCTTGT AATAATCTCG ACATTTCTGC GTTTCCTTTC TCTTTTCGCT CAAGTCTTTT	10020
GATTTTATTC TCTAGTTTCT TGATTTTTTT AGAATTATTA GAATAAAAGA AAATCATAAA	10080
TAGTATAAAT CCTAGTACCC ACATTATAAC TCCTTTCTGC TTCTATTTTC TTAACCTGAA	10140
TTCAATTGTAA CATATCTTTT TCTTTTGTAC AAGTATAGTT GTCAAAAAAA TTATGATTTT	10200
TGTCATTTTG CAAAAGAAAA AGGTCAGGAG TAGGTTCTCG ACCACTTTAT CTATCATTAA	10260
TACTCTTCTA AAATCTCTTC AAACCACGTC AGCTTCACCT TGCCGTAGGT ATGGTTACTG	10320

346

ACTTCGTCAG TTTCATCTAC AACCTCAAAA CCATGTTTTG AGCTGACTTC GTCAGTTCTA	10380
TCCACAACCT CAAAACCATG TTTTGAGCTG ACTTCGTCAG TTCTATCCAC AACCTCAAAA	10440
CCATGTTTTG AGCTGACTTC GTCAGTTCTA TCCACAACCT CAAAACAGTG TTTTGAGCAA	10500
CCTGCGGCTA GCTTCCTAGT TTGCTCTTTG ATTTTATTG AGTATAAAAT CCTAGTTTTT	10560
CAAAGATTTC TGAGAAGTTT TGGCTGATTG TCTCAAGTGA CACTTGCACT TCTTCTCGGG	10620
TTTGGTTGTT CTTGACCGTC ACTTGTCCTG TTTGACTTC GCTCTCTCCT AGGGTGATGA	10680
GGGTCTTAGC CGCAAAGACA TCGGCTGACT TGAAGTGA TTTTAGTTTA CGGTTGAGGT	10740
AATCACGCTC TGCTTTGAAA CCTTGTTGGC GAAGAGCCTG TACCAATTCC AAGGCCTTGA	10800
TATTTGCCCC TTCGCCCAG ACTGCGATAT AGACATCTAG GCGGTTTTCG ATAGGGAGGG	10860
TCACACCTTG CTTTTCAAGG ATGAGAAGCA GCGCTCTAC ACCAAGTCCA AAACCAAATC	10920
CAGCAGTTTC AGGCCTCCA AAGTAAGCAA CCAAACCATC GTAGCGACCA CCCGCACAGA	10980
CGGTCAAGTC ATTGCCCTCA ATCTCTGTGA TAACTCGAA AATGGTGTGG TTGTAGTAGT	11040
CCAGACCACG CACCATATTG GTATCGATGA TGTAATCTAC TCCAAGATT TCCAACATCT	11100
GACGCACAGC ATCAAAATGA GCTTGGCTTT CTTCATCAAG AAAGTCCAAG ATAGACGGCG	11160
CATTCTCTAC TGCCACCTTG TCTTCTTTTT CCTTAGAGTC CAAGACACGA AGAGGATTTT	11220
CCTCCAAGCG ACGTTGGCTA TCCTTAGACA AGGTCTCCTT GAGCGGTGTC AAATAGTCAA	11280
TCAAGGCTTG GCGGTAGGCT GCACGGCTCT CAGGATTTCC AAGAGTGTG AGGTGCAATT	11340
TGACACCTTG AATACCGATT TCCTTCAAAA AATGGGCTGC CATAGCGATT GTTCCACAT	11400
CGGTAGCTGG ATTGCTAGAG CAAAACACT CAACACCAAT CTGGTGGAAT TGGCGCAAGC	11460
GCCCTGCCCTG TGGACGCTCA TAACGGAACA TAGGTCCCAT GTAGTAGAAC TTGCTTGGCT	11520
TTTGCACCTC TGGGGCGAAA AGTTTATTTT CCACATAGGA ACGGACAACG GGTGCAGTTC	11580
CTTCTGGACG GAGGGTAATA TGACGGTCAC CCTTGTCATA AAAATCGTAC ATTTCTTTGG	11640
TTACGATATC CGTTGTATCT CCGACAGAGC GACTGATAAC CTCGTAATGC TCAAAAATAG	11700
GCGTGCGCAC TTCTGCATAG TTGTAGCGTT TGAATATCTC ACGGGCAAAG CCCTCAACGT	11760
ACTGCCACTT AGCAGACTCA GCAGGTAAAA TATCCTGCGT TCCTTTTGGT TTTTGTAATT	11820
TCATAGGGAA TCCTCTTTAA ACTTAATAGT CTTATTTTAC CATAAATAGA GGGATTAAAA	11880
CAGTAAGAAA AAAATTAGGA TTTAGATATC ATTTTGTGAGA TTAAGAATTG TCAAAAAAAT	11940
AGCTAGCAAG GAAAGACCAA CAAATAGCAT CCAAGTCAAC TGTATATTCC ATACGGCTAC	12000
TAGTGAAAAA CAAGCTGTTC CCACAGGTAT GGATAAGGTA AACAATAGAC CTAAAAAATT	12060
ACTAGTACGA GCTAGAACCT CTGGAGCTAG ATTTTTCATG AGCATGGCAC TAATCTTTGG	12120

347

TTGAACTTTA CCAGACACAT ACAGAGTAAA GAAGAGAAAT AGCAAACCAA GCACGACTTG	12180
ATTGAATAAA TTAGCCAAAC CAACTAGACT AAGTCCTACG GTCTCCCACA TCATCAATCT	12240
AGGCAAGGAC TGCTTCCCAA AATAATCATT GCCCGTAAGG CTA CTGATGA TGACTGATAC	12300
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GCTCAAAAAG AAGATATTAT AAATTCACC CAAAGCGCCA CCCAAGGAAT TAATAAGCAA	12420
GACAGCAAAG AGCATAAAAC CAAAGTTTTT CTGTCCACTT TTAAGAAAAA CGAGACGTAA	12480
ATTTCGGTAA ATTGTTAGGA ACTGGTCTTT GATAGAAAGC TTCTCATTTT TTAAGTTTTC	12540
ACCATCAGCA GATGACATTG ACAGGCTCAA TTTGCTTTTT CCTAAAAAGA GGATAGTGGC	12600
TGATACTAGG AAAAAGCAGG CATTGATTCC CGCAACGAGA GAAAAATTGT TGACCGATAG	12660
AGCTAAGAGC CAGACTCCGA AAGCTTGACC ACCAATAGCT GAAATATAGG TGATGAACTG	12720
TGAAAAAGAA TAAGCCTCCA TCAGATCATC TTCAGCTACT TTTTCCTTAA TAAGAGGCAT	12780
ACGCAGGCCA CTGCAAAAT CACTGATGAT ATCACTAATG ACATTGATCA AACACAGGCT	12840
AGAAAAGGCA AAGAGACTAG CTTGCTGAAC AACTAGGGCT GCTAGAAAAA ATAGAACCGC	12900
CTGAAACAAA CCGCTATAGA CCATCCATTT GACCTTGTC CTGCGTGAAT CTGCCCCAAT	12960
CCCTGCAAAA ACTGTAAAGA GGGTCGGAAG AATCATGACA ATATTCGCCA TAGCAACAGC	13020
AAAAGATGCT TGTGACAAGG TCGATGCATA GACGATAAAG ACCAGGTTGA AAATCGAAAC	13080
ACCAAAAGCA TTGAAGAAGC GTGG	13104

(2) INFORMATION FOR SEQ ID NO: 35:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19250 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

CCGGGCAAAT AGTTTGAAC TTTTCATCAT TTTCTCCTTT AAAACTTTCT CTCCATTATA	60
GACTCTTTTC AGAAAGTTGT CAACAGAATT TTCAGAATTT TTGAAAATTA TTTTTCAAAC	120
AACATCTTTG CAAAAAATAT GAATATCGTA AGCGCGTCAT AACAAGGTAT CTATCATTCA	180
TGGAGCTCCT CCTGTATACT ATTAGTAAAG TAAATATTGG AGGATATTTT AATGCCACAA	240
CCTATTGTTT CTGTAGAGAT TCCACAATCT CGTCGTTTTC ATTCTAAAAA GAGAAATGAT	300
ATTCTrCTTA AAATTCGTAT TGGCAAGCTT GAAGTAAGTT TTTTTCATC TCTCAATCTC	360

348

GAAATGATAG AACAGCTTTT GGATAAGGTG TTGCTCTATG ACAATTCATC TATCTAGCCT	420
AGGGCAGGTC TATCTCGTGT GTGGGAAAAC TGATATGAGA CAAGGAATCG ATTCACTGGC	480
TTATCTCGTT AAAACCCACT TTGAATTGGA TCCTTTCTCC GGTCAAATCT TTCTCTTTTG	540
TGGTGGACGT AAAGACCGCT TTAAAGTCCT TTACTGGGAT GGTCAAGGAT TTTGGCTACT	600
ATATAAACGC TTTGAGAACG GCAGACTGAC TTGGCCCAGT ACAGAAAAGG ATGTCAAAGC	660
TCTCGCACCT GAACAAGTAG ATTGGCTGAT GAAAGGCTTT TCTATCACTC CAAAAATATA	720
GTAGATTGAA ACTAGAATAG TACACCTCTG CTTCTAAAAC ATTGTTAGAA ATCGATTTTA	780
CTGTCTTGAT CGATTGTGCC TGTATTATT TCATTTTACT ATAAATCCAT CAGAAAGTCG	840
TGATTTCTAT TGAATGAGG ACTTTCTTTT TATACTCATC TGCTTTCAAA AAGCACTCTA	900
GTCCATCTCC GATTAACGAT GGACTTTATC ACCTCCTTCT CCAGTCCTTG TATAACATCT	960
TGAAGTTGAT TCATGACATC TTCCAAAGTT CGAAAGGCTT TATTCTTAAA TCCACGTTTA	1020
CGAATCTCTT TCCACACTTG TTCAATGGGG TTCATCTCTG GTGTGTATGG AGGAATAAAT	1080
GCAAAGCCAA TATTAGTCGG AATCTTTAAG GTACTTGATT TATGCCATAT AGCATTGTCC	1140
ATAACGAGTA AAAGATAATC ATCTGGATAA GCTTGTGAAA GCTCCTATTC CTAAAGCCCC	1200
TTTATAACCT CTGCGAGAG AGACTATTGA CTCAGCCCTT ACTTCATGCG GATGAAACCT	1260
CCTATCGGGT TCTAGAGAGT GATAGCCATC TGACCTACTA TTGGACTTTT TTGTCAGGTA	1320
AAGCAGAGAA ACAAGGGATT ACGCTTTACC ACCATGATCA GTGTCGAAGT GGTTCAGTAG	1380
TACAAGAATT CCTAGGAGAT TATTCTGGCT ATGTTTCATG TGATATGTTG CGGCAGTAAC	1440
TTAGGACTTT AGTCCTCTAG TTCTGCCTAT GCGATAGCAG TCCAAGGTTT AGGAGTAAGG	1500
CGACGCTAAG CTTGGTAAAC TGCGAACAGC TAGAAGCTTA TCGTCAACTG GAAGAAGCTG	1560
CACTTGTGGT ATGTTGGGCG CATGTGAGAA GGAAGTTTTC TGAAGTGCCC CCCAAGCAAG	1620
CAGATAAATC ATCCTTAGGA GCTAAAGGTT TAGCCTATTG TGATCAGTTA TTTTCCTTGG	1680
AAAGAGACTG GGAGGCTTTG CCAGCTGATG AACGGCTACA GAAACGTCAA GAACATCTCC	1740
AACCCCTACT GGAAGACTTC TTTGCTTGGT GCCGTCGTCA GTCAGTTTTC TCGGGTTCAG	1800
AACCTAGGAAG GGCAATTGAA TACAGCCTCA AGTATGAAGA AACCTTTAAG ACCATTTTAA	1860
AAGACGGACA TCTGGTCCTT TCCAATAATC TAGCTGAACG CGCCATTAAA TCATTGGTTA	1920
TGGGACGGAG TAAAAGAGTC CAGTGGACTC TTTTAGCCTA AGCTCAGTTT AAAAAACGA	1980
GGGTGGTTAT TTTTAAAAAA GCGAGGGTGG TTATTTTCTC AAAGTTTGA AGGAGCTAAA	2040
GCAAGAGCTA TTATTATGAG TTTGTTGGAA ACAGCTAAAC GTCATCAATT ATAGTGCCTT	2100
GAATCTATAA CAGTACGCAT CGACTGCTAA AATATTCTA TAAATCAATT TTCCTTTCCT	2160

AATCGATTTG	TTCATATCTT	ATTACAATCC	ATTATAAATA	GCGAGAAATA	TCTATCCTAT	2220
CTTCTAGAAT	GTCTTCCAAA	CGAGGAAACT	CTCGTAAACA	AAGAGGTTTT	AGAGGCCTAT	2280
TTACCGTGGA	CTAAAGTTGT	ACAAGAAAAG	TGCAAATAAG	AAATCTCCAG	ATTAGGAACT	2340
ATATATGAGT	TCTCTAGTCT	GGAGATTTTT	CAATAGACTT	CGTTATGGG	CGGTACTTTT	2400
CGAAACTTTG	AAAACCTCAA	AAAACGGATT	TTTATCGCTC	TGAACATCAA	AAAAGAAAGG	2460
ACGAAATTTG	TCCTTTCTCA	AGCTTAGCTT	TTCTTCAACC	CACTACAGTT	GACAAAGAGC	2520
CCTTTATCTT	ATCAAACATG	AAGCGCAAAA	ACAAGCCAAA	AATCCGATAG	AATGGCTATC	2580
CCTCGACTAT	CAAGTAAGAC	ATTTCCATCA	AATACGTTCA	ATTTTACTCT	TGTTCTACTA	2640
AGAATTAATC	ATCTCGTTTT	GATTTATTAA	AAATATACAA	TTCAGCTTTT	CCTCCAAACT	2700
ATTTTATCCA	CTATCCCTGT	ATAGCTCTGT	ATTATCTTAA	CAACTTTAGT	AGAGACATTT	2760
TCCTCAACAT	AATCCGGAAC	CGGTAATCCA	AAATCCTCAT	CTTGTGCCAA	GCTAACAGCA	2820
GTTTCAACTG	CTTGAAGAAG	AGAATTTTCA	TCAATGCCTG	CCAAAATAAA	TCCTGCCTTA	2880
TCTAAGGACT	CAGGACGTTT	TGTACTTGTA	CGAATACATA	CAGCGGGAAA	AGGATAACCT	2940
TGACTAGTAA	AGAAACTACT	TTCTTCCGGT	AAAGTTCCCG	AATCAGATAC	TACAACAAAT	3000
GCATTCATCT	GTAACAATT	ATAGTCATGG	AATCCTAGTG	GCTCATGCTG	AATCACACGT	3060
TTATCTAGTT	TAAACCGCT	CTCTTGTAGC	CTTTTCTTTG	ATCTAGGATG	GCAAGAATAT	3120
AAGATTGGCA	TATTATACTT	TTCAGCTAAT	TGATTAATTG	CTGTAAAGAG	AGAAATAAAA	3180
TTTTTATCTG	TATCAATAT	TTCCTCACGG	TGAGCTGAAA	GTAAGATATA	ACCTCCTTTT	3240
TTCAATCCCA	AACGTTTCATG	GATATCTGAA	GACTCAATAG	CAGATAAATT	TTTATGTAAC	3300
ACTTCTGCCA	TAGGAGAACC	AGTTACATAT	GTGCGCTCTT	TAGGTAAACC	ACACTCATGT	3360
AAATACTTAC	GTGCATGTTT	AGAGTATGCT	AAGTTAACAT	CTGAAATAAC	ATCAACAATC	3420
CGACGATTAG	TCTCTTCCGG	TAGGCACTCA	TCTTTACAGC	GATTGCCAGC	CTCCATATGA	3480
AAAATTGGAA	TATGTAAACG	CTTGGCAGCA	ATAGCTGATA	AACAAGAATT	TGTATCCCCT	3540
AAAATCAATA	AAGCATCTGG	TTTAATTTGA	TTTATCAATT	TGTATGAAGT	ATTAATAATA	3600
TTCCCTACAG	TAGCACCAAG	ATCATCTCCA	ACAGCATCCA	TGTATACGTC	CGGAGTGTCT	3660
AACCTTAAAT	TATCAAAGAA	AATACCATTT	AAATTGTAAT	CATAGTTTTG	TCCAGTATGT	3720
GCCAAAATAA	CATCAAATAA	CTTTCGACAT	TTAGTGATAA	CACTACTTAG	ACGTATAATC	3780
TCTGGACGTG	TTCCACAAT	AATCAATAAC	TTAAGTTTGC	CATTATCTTT	AAAGTGAATA	3840
TCACTATAAT	CTGTCTTAAT	TTTCATTTAT	TTCTCCACTT	GTTCAAAAAA	AGTATCTGGA	3900

350

TGTCTAGGAT CAAATGACTC ATTAGCCAC ATGACAGTAA TTAGATTTTC TGTATCAGAA	3960
AGATTAATAA TATTATGTGC ATAGCCCGGT ATCATATGTA TTGCTTCAAT CTTATCGCCC	4020
GACACTTCAA AGTTCAGAAT AGGATACTCT TGACCGTTTT CATCCAGCCC TATCCTACGC	4080
TCTTGTATTA AAGCACGACC AGAAACAACC ATGAAAAAT CCCTACTAGA ATGATGCCAA	4140
TGTTGCCCTT TGGTAATGCC AGGTTTAGAA ATATTAACAG AAAATTGACC CGTATTTTCT	4200
GTTTTTAATA ATTCCGTAAA ACTACCTCGT TCATCTATAT TCATTTTTAG AGGAACTTA	4260
AACTTATCTA CTGGTAAATA AGATAGGTAG GTAGAATACA ATTTCTTTTT AAACGATCCC	4320
TGAGGAATTT CAGGCATAAC TAACTATCA GGCTGTTTTT TAAATGTTC TAATAGAGAG	4380
ACAATCTCTC CTAAGGTGC ACGATGAGTC GTTGGTACGT AGCAGTAGTT TCCTGATGGG	4440
CTAGGTAAGA TTTGTAATCC ATCTAGATTA CAACGATGAG GATTTCCCTC CAATGCAGTT	4500
AGACACTCTT GTATCAAATC ATCAATATAC AGCAACTCCA ATCTACACT TGGATCATTT	4560
ACTTGAATAG GTAAATCGTG AGCTAGATTA TAACAGAAAG TTGCTACAGC AGAATTGTAG	4620
TTAGGACGGC ACCACTTCCC ATAAAGATTC GGGAAACGGT AAATAAGAC AGGTGCTCCC	4680
GTTTTCTTTC CATATTCAA GAAGAGTTCT TCCCTGCTA GCTTAGATTG TCCATATATA	4740
GAGTTTGAAA ATCGGCCTTC TAACTAGCT TGAGTAGAAC TTGAGAGTAG AACAGACAA	4800
GTGTTTTCAT ACTTTCTAA AATCTCCAAT AATCTACTTG AAAAACCCTA ATTTCCCTCC	4860
ATGAATTCAT CAGGATCTG TGGACGATTG ACACCAGCTA AATGGAATAC GAAATCGGCC	4920
TTCTTACAAT ATTCATCTAA TAAATCGGA TCTGTATCAC GATCATACTG AAAATCTCT	4980
CCAATCTCTA AATTAGGACG AGTCCTATCT CGTCCATCTT TCAAAGCTC CAGAGTACAG	5040
ATAAGATTTT TTCCTACAAA TCCTTTCGCT CCTGTGATTA AAATATTTT AATCATGCCC	5100
CCTCCTTATT TTATATGCTG TTTTAATAGT TAACTCTCTC GACAATACAT GATACATTAT	5160
ATATCCTTGA TAATTTTAAT GTATCTTAAA AGATTTTACA TCTCTTCGTC TGCTACCATA	5220
TCACGAATTG CTGTCTGTAT TTCATCTAAT TCTAGCAACT TTCTTTTAAC TTGCTCTACA	5280
TCCATCAAAT CGGTATTATT ACTATTGAAT TCTGTCAACA AATTTCTATT CGTACTACCA	5340
TCTTTGAAAT ACTTATCATA GTTAAGATTA CGATTATCAC TAGGAACTCT ATAAAAATCA	5400
CCCAAATCAA TTGCATTTGC GCACTCTTCG TTAGTTAATA GTGTTTCATA CCTTTTTTCT	5460
CCGTGTCTAA TACCTATAAT CTTAATATCT GTTCTTGAGG CAAAAATTC TGATACAGCC	5520
TTAGCCAACA CTTCAATCGT ACATGCTGGT GCTTCTGAA CTAGTATATC TCCAGATTTC	5580
CCTTCTTCAA ATGCAAATAA AACCAAGTCT ACTGCTTCTT CCAATGTCAT CACAAAACGT	5640
GTCATGCTAG GTTCAGTAAT TGTAAGAGCA TTTCTTGCT TAATTGCTC AATCCAAAGA	5700

351

GGAACGACAG ATCCACGGCT ACACAGAACA TTCCCATAGC GAGTCACACA TATCTTTGTA	5760
TGCTCAGGAT TTACCGTCCT GGACTTAGCA ACAGCAATCT TTTCCATCAT AGCCTTGGAT	5820
GTTCCTATAG CATTGACAGG ATAAGCCGCC TTATCTGTAG AAAGACAGAT AACTTGCTTT	5880
ACACCAGCTT CGATAGCCGC AGTGAGGACA TTCTCCGTTC CCAAATGTT AGTTTTTACC	5940
GCTTCTACAG GGAAAAATTC ACAAGAAGGT ACTTGTTTAA GAGCAGCAGC GTGAAAAACA	6000
TAATCCACAC CATGCATAGC ATTTTTTACC GAAGCTAAGT CACGCACATC TCCAAGGTAA	6060
AAACGGATTT TCCCAGCCAC TTCTGGTACT TTTACCTGAA ACTCATGACG CATATCATCT	6120
TGTTTCTTTT CATCTCGCGA AAATATACGA ATCTCTGAGA CATCTGTTTC TAAAAACGC	6180
TTGAGAACCG CATTCCCAA TGAACTGTC CCTCCTGTAA TTAGGAGAGT TTTTCCTGTA	6240
AATTGTGACA TATATTACAC TTCTCCTTCT AGTATGTCTG CAATTTTCTT ACAAGCCGTT	6300
CCATCTCCAT ATGGATTGA AGCTTGA CTC ATTGCTTGAT AAAGTGAATC ATTTTCTAAT	6360
AATTCCTTAA AATGCCTATA AATATTATTT TCATCAGCAC CTACAAGTTT CAAAGTCCCT	6420
GCTTCAATTC CCTCTGGACG TTCAGTTGTA TCTCTCATAA CCAAACAGG TTTTCCTAAA	6480
CTTGAGCCTT CTTCCTGAAT ACCACCACTA TCTGTTAAAA TTAAATAACT TCTTGATAAA	6540
AAATTGTGAA AATCTAATAC TTCTAAAGGT TCGATCATCT TGATACGTTT ACAGCCACTT	6600
AGTTCTTCCT CAGCAATTTG GCGAACACGA GGATTCATAT GGATAGGATA AATAGCCTTG	6660
ACATCTGAAT ATCTTCAAT AATCCTTCTA ATTGCTCTAA ACATATGTCT CATCGGTTCA	6720
CCAAGATTTT CACGACGATG AGCTGTAATT AGAATAAACC TGCTTTCTCC TATCCATTCT	6780
AACTCAGGAT GCGTATAGTC CTCTTGAATT GTAGTTTGTA AAGCATCAAT CGCCGTATTA	6840
CCTGTCACAA ATATGCTCTC TGGAGTTTTT CCTTCTCTTA AAAGATTATC TTTTGAAAGT	6900
TGTGTTGGTG TAAAAATGATA CTGAGCCAAA ACCCAAACG CTTGACGATT AAATCTTCA	6960
GGATATGGTG AATAGATATC GTAAGTGCGC AAACCAGCTT CAACATGACC AATTGGAATC	7020
TGTAAATAAA AGGCCGCCAG TGAAGTAGCG AAGGTCGTAC TTGTATCCCC ATGAACTAAC	7080
ACCAAATCAG GTTTTTCTGA CTCTAAAATA GCCTTCATTC CTTCAAAAT GCCAATGGTC	7140
ACATCAAATA AAGTTTGTTT ATCTTTCATA ATAGACAAAT CAAAATCGGG AATAATCCCA	7200
AATGTGTCCA AGACCTGATC CAACATTTGA CGGTGTTGGC CCGTAACGCA AACTAATGTT	7260
TCAATATTCT TACGTGTTCT TAACTCTTTG ACCAAAGGAC ACATCTTGAT GGCTTCTGGA	7320
CGAGTTCCAA ATACTACAAC TACTTTTTTC ATATATTTAC TTAATCTTAA CAAATAATGA	7380
ACGGTTCTTA AAATAAATTA GATAACGGCT AATCCATAAC ACCACCTCAG ACATACTTGA	7440

352

ACAAATAGCT	AATGTTACTA	AACTAAAATT	ATCAGACAAG	ATAAATATTC	CTAATCCCAA	7500
AGTTTGGACA	ATCGAAGCTA	ATATAGTTGT	CATTGTAGTT	TCTTTCACCT	TATCAATAGC	7560
TCCTAAGACA	GGCCATCCGT	AAATCATAGA	ATAAAAACTA	GCAACAAAAG	CGGGTAATAA	7620
GTACTIONAAGA	AAATCTGCTG	AAACGGTATA	TTTTTCACCA	CCAATTATAG	AAAGAATTG	7680
ATTTGAAAAG	AATAAACTA	TCAAACTCC	AAAGATAATA	GGAATAAACA	TAATCCGATT	7740
AATACTCTTA	ACCGATTGTA	TATCTTTAGT	ACGTATCATA	TGCGGATATA	AACTATTGCG	7800
TATAGGATTA	TACAATGATT	TTGCTGCTGA	AAGCAGTTGC	ATTGCTATCC	CCCAAAAGGC	7860
TATCTCTTGA	CTTTGTAAAT	AAAAACCCGA	AATGACTGTC	GTAAAGACGC	CAAAAATAGT	7920
AGTTGCAAAA	TTGGATAAAA	AATAAATAGA	GGATTCCCTT	AAATCTTTAA	CCCAAACAGA	7980
CAGATAAGAA	AATGATAATT	TAATCCATA	ATAATGAAGG	AATCTATAAG	AAACTACTGC	8040
AGCAACTAAA	TTCCCAATTC	CTTCCAATAT	AGGAATCCAT	AAAATAGAAG	AATCATCTTT	8100
TACTACAATA	AATGTCAAAA	TTGTAATGAT	AGTTTTAGAA	ATAATATAAG	GAATTGCAAC	8160
TGCATGCATC	TTTTCAATTC	CACGAAATAA	AAAGTCAAAG	ATAAAAAATAT	TGGTCACTGT	8220
AGCTAACAAA	TAAAAAAGT	AAAAAAGAAT	ATTCTCTCTC	ATTATTGGGA	TTTGCCACAT	8280
CAATATGGTG	TAAATTAGAA	TCGAAATGAT	AGATAAAAAT	ATTTTTTCAA	CTAGAGTATC	8340
TCCAACATATC	CTTCCAATCT	TTGAGGGAGT	AGTACAAGCA	TTTACAATAT	TTTTTGTAGC	8400
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AATAACCATT	CCATACGCGT	CTAGCGAAAG	CACCCTTGTC	AAATACGGGA	GTGTTAATAA	8520
AGGAAATAGT	AATTTAACAA	TATTCAGAAT	ATAGAGAGAA	CTTGTATTTT	TTATAAATGA	8580
AATTCATCA	ACTTTCACGA	ACTAGTCCTT	CCAAAAAAG	ATCTAAATAG	TCCAAACTAC	8640
TTCTCGCTTT	CAACACCAAT	TCTGAAGGTA	TTGTTATCGG	TTTTAGATGA	AAAGTTTCAA	8700
GTTTCTTTAC	AATACTATTA	ACACTTGAAT	CAAATAAAGA	TTCACAACGT	TGTAACCTC	8760
CAATTGCTCC	ATAATAACGT	GCTGTTTTTT	CTGGATGGCA	TGCAATGGCA	ATCACAGAT	8820
TATTAAAAACA	TGTTGCCACT	ACCCCAACAT	GTAATTTACA	AGTTAAAACC	ACATCTACCA	8880
TTTTCAACAA	TGATGTCATT	TCTGCAGGAG	AATGATACTT	GAATTGAAAA	CAATCCTCAG	8940
TTCTAACTAA	TTTTCTAAAT	TCCTGATAAT	AAGCATCTTC	ATAAGGTAGA	ATGGAATCCG	9000
AAGTTACTAC	AACATAATAG	TTAGGATTGT	TTTCTAGAAA	AAGACTAATT	GATTCCGCAA	9060
ATTTTCAAG	AGCTTTTTTG	GAATGATTAT	AGTGAACAAG	AATTATCTTC	TTATCTTTAG	9120
CTTCTCTTTT	CAATTGACAC	AGCTGCTCTG	TTTTTCTTTC	TCTTAATTTA	CTTGAAATAA	9180
TTAAATCAAA	GGTTTCATGC	ACTGGAGCCG	AAGGCGACAA	ATGCTTCAAA	GAATCAAATG	9240

353

ATTCTCGATC	ACGAACTGTA	ATAAATTGAG	CATGATTAAT	AATTCTCTTT	ATACCATAAT	9300
TCATCAAAGA	ATCGTTATTA	GGCCCTGCAC	CAATACCTAA	TACTCCTATA	GGCTTTTTTAA	9360
AATATGAAGC	CCAAATTCCC	AAAGGTAAAA	ATCGTTTAAA	TTGGATTAAA	TTATCACGAA	9420
AACGTGCATT	ATGCCCTTCC	CCAAAATATC	CTCCCGGGAT	ATACAAAATA	GCATCTGCTT	9480
GTTTTTTAGT	AAAACTTTGT	TTTTGGCGAT	ATTCTTTCAA	GTACATTTGA	AAGAAATCTG	9540
ATGGATTATA	AAAAGAACT	TCATATCCTT	TAGATTCTAA	TAAATCATAG	ACAATCTCAC	9600
CGTAAAGATA	ATCACCGTAA	TTACTTGAAC	CATAATCCGT	TGCACCATGT	AACATAATTT	9660
TTTTTCACCAC	TATTTTTTCA	ACCTCCTAAA	AATAAATATC	ATAATCAAAC	TATACATAAT	9720
AGGACGATAA	ACATCTATTG	AACTACTTCT	CACTAAAAGC	AATAGTTGAG	AAATTACCGA	9780
AAAATAAATA	ACTTTTGAGA	TTTTACTTGT	TTGAAAAGCT	CTGAAATTTA	ATCGCCATCC	9840
ACTAAATATT	CCCAAAACAA	AACTCCAAAA	AACACCACCA	TAGTAACCAA	AGTTCCAAAA	9900
TAATTCTTCC	ACAAAAGAAG	AGCCTACAGG	TAACCCCAA	AATTTATTAA	TAACAACCGT	9960
CGCTGATGCT	TTATCAAAAA	AATCACCAAC	TAACCATCCA	ATAGGAAAAA	TTGATAGGAT	10020
AGTGCGTAGA	AATGTCATCC	CATATTCATA	TGGAATGCTA	CTAGGCACAA	CAGTTACAGC	10080
AGAAGCTACT	GTTAGGCTGG	TCAGTCCCGA	CTCTGAAAAT	ACTTCCCCTA	GTATATTCTT	10140
TACAAAATCT	AATGAAGAAA	AGGAATCAAA	TAAGTATATA	CCTATAGTAT	TCAAGTCGAA	10200
ACGGTGCCCC	CTAATAACAA	CTAATACATT	TAATAGAAAT	ACAGTTACTA	TTAAAAATAC	10260
AAGTACTCTT	TTCTTCGAAA	AAGTAATCCC	TAAAGATTGT	GTGTATACTA	AAACCAACGC	10320
CAAGATTGAA	AACACCTGGA	TTTTACGACT	TCCTGTTAGG	ATCATTATCA	AAATTAGGTA	10380
AAACAACATT	ACCCAAAAAA	TAGTACGCTT	TATAACTCGG	GACAGCTTAT	CTGAATAAAA	10440
CAAGGAGAAC	ACACCAGGAA	GCATAAGTAC	TCCTAAATCA	TCTATTATTC	CTGAACTAGC	10500
TGCCCTCTGAA	TATGCTGAAT	AGCTATTCGC	CGCTCTAACT	GCTAGTACTG	TTTTAGAATC	10560
AGTTATTACC	CTAGAAATAA	AGCCCACTCC	TGTTAAAAATC	CTACCCGCAT	TGTACAAAAT	10620
TTTCTCTTCA	TTTTCTGAT	AATTTGTAC	TTCTGAATGA	TAATGTACCT	TTCCATCACT	10680
ATAAAAAAAT	AAATAGCCTA	CAGAATAACA	AAACAAAATC	CAAATTATAA	AAATATATGA	10740
ATGAAATAAT	TCTTCATTAT	TATAGAAGTT	ACTAGGGCTC	CACAGCAGAG	TTGTTTGAAA	10800
CCCCATATAC	TCATTGAAAA	TTAATCCAAA	CATAAAAAAA	TAAGATAAAA	TCAGATACCA	10860
TACAGAAAAA	TCATATATAC	TAACTTTTTG	TAAATAAAAA	CCAGTAATTT	GAAAAATAAT	10920
TAGAAAGCAA	ACCCATATAA	ATATAGACGG	AACATAATTA	GATATAAGAA	AACCATTATT	10980

354

CCAATTATCG	AGAGTCCAGA	ACAAGTAACA	GAAAGCAAAT	ATAAACTTA	ATGTCACTAG	11040
TGTCACCTCTA	CAAAATATACT	TTGTCTGCAT	CTATATCTCC	TTTATTACAC	ACATTTCTTG	11100
ATAACGATTC	AATAATTTAC	TAGCTTGATA	ACAAATATCA	TAGAGTCCAT	CTGTCATACT	11160
GTTATTTATT	TCAAAACGAT	TGCATTCCCTC	AGATGTTAAA	GACAGTACTT	TATCTTTCCA	11220
TAGCAACACA	GACTCTTCGT	TGATAGGTAA	GTAACAAATG	TTTTTGGTCA	CATCTACTTC	11280
TTGCGTCACT	GTATCTGACG	ATAAAATTTG	TAATCCCGAT	GCCTGAGCCT	CTACTAGAGA	11340
AACAGGCAAC	CCCTCATATT	TAGACGGAAG	CAAAAAACA	TCCATCGCAG	ATAATAAATC	11400
AGAAATATCA	GTCCTTCTCC	CTAAAAATAG	CACATATGGG	GTCAGATTTA	GTTCTAAAGC	11460
TTTCTGTTTT	AATTCTGCT	CATCCTCACC	ATTACCAACT	AGGAGTAAAA	TAACATTTGG	11520
TTTGATTAAA	ATGAGTCTT	TTAAAACGTT	AAATAAATAA	CTTTGGTTTT	TTTGATCTGA	11580
TAGGCGAGCT	ATATTTCCTA	ATACGAACTT	ATTTGACACA	TCTAATTCTC	TACGACATTT	11640
TTCTCTAACA	TCTGACAAAA	ATTGATACTT	TTTCAAAATCA	ATTGCATTAA	AAATAATTTT	11700
AATTTTCCG	TCTTTATACG	CTTCTCTCC	ATATAACCAC	TTAGCCGAAT	CTTCCCCACA	11760
TGCAAAACCA	TGAGTTGCTA	AGATTTTAC	CAAAATGTT	ACTAATTTAC	GCAATACTTT	11820
TTGAAAACG	TTTCTGTTA	CATAAGCCAT	ATGACTATGA	ATAATTCTAA	TTTTACAACC	11880
AATTATTTTA	GATAAGATCA	GACCAATTGC	AGATTTATAG	CCATGGCAAT	GAATATATC	11940
ATAATCTCCT	TTCTTTATTA	TTCTAGCAAG	AGAGAGAAAC	TGATGTAGAG	GCTTTTCTCT	12000
TAATAGAGGC	ACATGATAAA	CCTTTGCACC	CAATCTTTT	ATTTTATCCT	CTAAAAATCC	12060
TTGTCTTTTT	CCAGGCACAA	TAAAATCAAA	TTGAATTTTT	TTTCTATCAA	TGTGAGAATA	12120
ATAGTTGAAT	AGAAAACTTT	CTACTCCACC	ACTATCTAGT	GTTGTAAATA	GATGTAATAC	12180
TTTAATCATT	CTTCTTCCTT	AAGCTTAAGA	TTCGCTTCTC	TAATCTATT	TCTGTTTTTT	12240
GTTTTTCTAA	ACTAATCTG	TCCATGAAGT	TATCACAAAT	CTTAATTAGC	TGTTTCCTGT	12300
CAAGGTTTTG	AATATACAAA	GCCAAACAAT	CTTTTCCGA	TTCATCCTTC	ATAGGTAAAA	12360
CGAAACCAAA	ACCATTCTCT	ATTGACACTT	TTTCCATATA	AGTATCTTCA	CAAACTAAAA	12420
TAGGTTTATA	CAACAATGCA	GCAAAGTAGA	GTTTATTAGA	CAAAGCATAG	TCTAGTAAGG	12480
GAGTGTGATT	CCCGTATAAA	TTCAAACAA	CATCTGTATT	CTTATAAAAA	GACATGGTAT	12540
CTTTAGGCTG	GAATGTGTCC	ACCAAGTTAA	CATTGCTGAT	ATTTTTTTCT	TGACAAAATT	12600
CCCTTAATTC	TCCTGCATTA	GTACCTATAA	AATTCAACTG	AAATCGACTG	TCATTTGCAA	12660
AAAAATCGAT	TATTTTTTTA	TTTTGTCTT	GAAAACGAAT	TAAACCAATG	TAGGAAAGTT	12720
GAATTGGAAA	CGTACTATTA	TTTTTTAACT	GCTTTACCTC	GTTTAATTCT	ATCATATTGG	12780

355

GTAGGTTATG	GGTAGTAAAA	TACTCTCCCA	TTGGTAAAAA	AAATTTATAG	CCGTCTGAAG	12840
AAACGATATT	CATTAAAGAA	TTTTTCACCA	ATTGTTTCTG	AACCAAACGA	TAAACCAAAA	12900
ATTTTTCATA	ACTGTAATCA	CGAATATCAT	AAATATATCT	ATTTTAAAT	GAAAAGAGAA	12960
GAAAATCTAC	TAAAATGAAA	GACACAATAC	TATGTAACGG	CAATATCATA	TCATAATCAT	13020
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ATTTTCCTTT	ACCAGAAAAA	GAAATACGAT	AGTAGTTTGT	TTTTGTAATA	ATCTCGTTAA	13140
TATTCCTATC	CCAATATATA	ACATCGTAAC	TAATAGACAG	TTTCTTCAAT	AATTCCTTAT	13200
AAAAATTGAA	GTAAGGAGTT	AGATATATAT	TATCAGATAG	TATAAACAGT	ACTCTCATTA	13260
AATTATCTTT	TCTTACTTTC	CCTCTCTAAA	CATGTCTCCA	GTTCGAGCAT	AAACTGCTCT	13320
TTTGAAAAGT	GATTTTCATA	GTAACAACGA	GCTTCTTTTC	CTAACTCTCT	TTGTCTCTTA	13380
ATAGATAACA	TACTAAATTT	ACAAATATTT	TTTGCCAAAT	GTTTTACATC	TCGTTGCGGA	13440
CTAACATATC	CACAATTTGC	TTCTTCTACA	ATTATTTTAG	CATCTCCTGA	AATTGCACCT	13500
ATAATTGGTT	TGCCTGCCGC	CATATAAGAA	TGTACCTTCC	CAGGTATAGT	ACGAGAAACT	13560
ATCGAGTCTC	CTATTAAAGA	AACTAACATA	GCATCTGATT	TTTTATAGAA	GGATGGCATT	13620
TCCTCCAAAG	AACGTCTTCC	ATAGAAGGAA	ATATCTTTTA	ACTCCAATTC	ATGAGCTAAT	13680
GCTTTCATGC	TTAACAATTC	CGTACCATCT	CCAACAAAAT	GAAAATGAAT	TTTCTTGGGT	13740
AAATTGGTAT	TCTTCTCTAT	CAAACTGGCA	GCTTTCAAAA	TAGTTTCCAA	ATTTTGTGCT	13800
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GGGATAAAAA	GATCTTCTGC	ATATTGTGGC	AAATATGTAA	TCTTTTGTTC	GGATATGTCA	13920
AATTGCTTCA	CAAAATAATT	TTTAAATGAT	GGACTAGTGA	CAAAATATATA	ATCACTAGCT	13980
CGGTAAACTT	TTTTTGAGAT	AAATTTAAAC	AGCTTGAAAA	TCAAGCCATC	TTGTTTCACT	14040
CCACCTACGG	TTAAACTATC	TGGCCAAACA	TCCATACAAT	ATAGAAACAT	CGGTTTCTTA	14100
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AATACACAGT	CAAAATTCGA	TCCATCTTTC	GTTTTATACC	TCCCAATAA	AACTCCTAAA	14220
GTAGAACTAA	TTGCAAAGCT	AAAATAATTC	AACAATCGAA	ATACAACACT	TTTTTTTCTA	14280
GGGATTGTAT	AAGAACGATA	TATCGTAACA	CCTTCTATAA	TCTCACGTCT	TTTTTTATTA	14340
TGACGATAAT	CTGCATATAT	CTTCCCTTCA	GGGTAATTAG	GAATCCCAGC	CAAAACAGAG	14400
ACTTCATGCC	CTTTTCGAAC	TAAATCTTCA	CAAATATCTG	ACAACCTGAA	TGGTCTGGC	14460
TTATAATGTT	GGCAAACAAA	TAGTATTTTC	ATTGTCCAAT	TTAACTTTCT	TTCTTACCAC	14520

356

TACCCCTCTAC	AATACCTTTT	CGTTTCAGTA	CGTAAGGTAT	TGTCTTAACT	ATACATCTAA	14580
TATCCATTAT	CAAAGACAGA	TGTTTAACAT	AGTAGCCATC	TAACTCCGTC	TTCATCTCAA	14640
CAGACAAAGT	ATCACGCCCG	TTAATTTGTG	CCCATCCAGT	TAACCCTGGC	AAGATATCAT	14700
TTGCTCCATA	CTTATCTCTC	TCTGCAATCA	AATCTAGTTC	ATTTATACCC	GCTGGTCTAG	14760
GACCTACAAT	ACTCATATTA	CCAACAAGAA	TATTAAACAA	TTGTGGTAGT	TCATCCAAAG	14820
ATGTTTTTCG	CAAGAAAGCC	CCTACTTTTG	TAATCyATTG	CTCTGGATTA	TATAAGTTTC	14880
GAGGCGCCAC	ATTTTTAGGT	GCATCTATTT	TCATAGACCT	AAATTTCAAA	ATATAGAAGT	14940
ATTCTTTATG	AATACCAAAG	CGTTTTTGCT	TAAATATAAC	CGGACCTTCT	GAATCAAGTT	15000
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ATAATATATC	ACCTAATCGT	TTTATTATAC	CGTACATAAA	CAACCTCCAA	CTATAAATTC	15120
TATTTCCATT	TTTCATTCTA	TTTCCATTTG	ACAAATTAAA	TCAGGCAGTA	CATGCAACTA	15180
CAGAAACTCA	ATATATATTT	GGTCACTCAA	TGATTTTCAG	AAATATAATT	CTTTTATCCT	15240
CTACGTCAGA	TAAAACTTT	CTCCATCTAA	ACAAAATTTA	TTTGTTCAG	TAATATATGA	15300
GTTCTCAATA	ATGAATTAGA	AGGTCCAGTT	CAATTATCT	TCCAAATAGA	CCGAATATTA	15360
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TGAGTGATAA	TTGCCGCATC	AATAACAATT	CCAATAGGCG	GTGTATCAAT	AATGATATAA	15720
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CATAAACCGT	GAGATAAATC	AGCTGTCCCA	GATAAAAATT	CTGTTAGCCC	TGTAATTTIT	15900
TCACGAGATT	TAAAACTCC	TAACATAACT	GAATTTGAG	TATCGCCATC	GATCAAAAGA	15960
GTTTTATAGC	CTGCACGCGC	AAACGACCAT	GCTATATTTA	TGGAAGTAGT	TGTTTTTCCT	16020
TCCCCAGGGT	TAACAGAAGT	AACGAAATT	ACTTTTAGTT	TATCTCCGCT	CAACTGTATA	16080
TTTGTACACA	AGGCATTGTA	ATATTCTTCT	GCCTTCTTAA	TGAACTCCAG	TTTTTTTTGT	16140
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CCCAAAAGTG	TCATCTGCAA	TGTATTTTCG	ATATCTTCCG	GACGTTTCAC	ACGAGTATCC	16260
AAAAGTTCAA	GATGAAGAAC	TATAACACTA	GTTCCAATCA	CCCCTGCCAA	AAAACCAATT	16320

357

AGTGTATTGC GTTTAATATT TGGCGAAGAC GGGGATATCG CCGGCCTTGC CTCCTCCAGT	16380
GTTGTACACGT CAGAAACACG AGTAATACTG ATAATTTTTT GAGCAGCTAC TTCTCTCAAA	16440
GAGTTAGCGA TACGGCTTGC CTCCTCAGGA ACTCGATCAT TAACTGAAAT AGAGACAATA	16500
CGGGTATCAA CTGGTACTGT CACTTTAATT TTATTAGCCA AACCTTTTGG CGTCAAATCT	16560
AGTTTCAAAT CAGAAACAAC TTCCTCCAAA ACATCCTGCG AAAGGATAAT CTCACGGTAG	16620
TCTTTTACCA GATAAGTTCC TGCCTGCAAA TCCTGATTTG TCAACCCCGG CTTGTCTCCT	16680
TGATTGCGAT TCACTACGTA AATTCGCGTG GTACTCGTAT ATTCTGGCTT AACAATAAAA	16740
GTGTATATG CAAAAGCCCC CGCACCTGTC ACAAGTGCCA CTATTAAAAT CATTAGCTTG	16800
CGTTTCACA AGCTTTTAAC TAATTGAAAT ACATCGATTT CTATCGTATT TTGTTCTTTC	16860
ATCATTTCTC CTAAATTAGT TGATCCATTA CAATTTTTTCG AGGATTGTCT ATAAAAAGTT	16920
CCTGAGCCTT CGCTTCTCCG TATTTTGGG TAACAAGGTC ATATGCTTCT GCCATATGAG	16980
GAGGTCTACC GTCTAGATTG TGCATATCAC TTGCAATGAC ATGAACCAA TCCTGCTCTA	17040
AAAAATACTG AGCTCTTTTT TTCATGAATT TATAACGTC GCCAAAAAGT TTGGGTTTGA	17100
GGACATGTGA ACTATTTACT TGGGTGTAAC AGCCCATATC GATCAGTTCT CGAACGCGTT	17160
TTTCATTATT TTCAAGAGCA TCATAGCGCT CAATGTGGGC AATGACTGGA GTAATTCCCA	17220
ACATCAAGAT CTTGCTCAAG GCGCTATGAA TATCGCGATA AGGAGTGTTC ATACTAACT	17280
CTATCAAGGC ATAACGACTA TCATTGAGGG TCGGAATCCG CTTTTTTTCC AGCTTATCCA	17340
GAACATCTGG TGTGTAATAA ATTTAGGCC CGTAAGCAAT GACCAAGTCA CTCGCCACTT	17400
CCTTAGCTAT TTCCCGAACC TGAAGAAAGT TTTCTGCTAT CTTCTCTTCC GGAGTTTCAA	17460
ACATGCCCTT GCGACGGTGA GAGGTAGAAA CAATGGTTCG CACCCCTGT CTGTAGGATT	17520
CTGCCAAGAG AGCCTTGCTT TCCTCTCTTG ACTTGGGACC GTCATCTACA TCAAAAACGA	17580
TATGCGAATG GATGCTTATC ATTTTCATCTA CCCTCCATCA CATCCTGTAT AGCTGCTTTA	17640
ACTACAGCTA AACTACTATC ATCTATTTCC ATCACATAGA GGTTACTGTC TGGCATTGCA	17700
TAAGAAGGAA GATCCATCCG ACCTGTCCCT TTAAATCTT GAGAATTTAC TTTATAATTC	17760
CCTCCACTTT CTAAGTACG ATTGACCAA TTTATCATGG TCTCAAGTGG CATATTTGTT	17820
TGGATAGAAT CTGCAAGCT ATTAATGATC GTACTATAAT TTTTCAGCAC TTCGGTTGAC	17880
GTTAATTTTT GAAGGATAGC CACAATCACC TTTTGTGAT GCGCCCCGCG GTCACGATCG	17940
CCATCTGCTA GGGAGTAGCG CTCACGAACA AAACCGAGAG CCTGTTCTGA ATCAAGATGA	18000
ACATTGCCTG CAGGGTAATA CTTTCCATTC GTATGGGCAG TAAATTCCTG ATCATTATAA	18060

358

ACATCAATTC CACCCAACAA ATCAATCAAT TTCAAAAACG AAGTGAAGTT CAATCGCACA	18120
TAGTAATTGA TATCCACTCC ATAGAGATTT TCTAAGGTGT GAATGGACGA ATCAACTCCA	18180
TAAATGCCCG CATGAGTCAA TTTATCTTTT TGATTATTTT CACCATCTGC GATTGGTACA	18240
TAGGCATCAC GTGGCGTTGT GGTCAAGAGG ATTTTCTTGG TATCTCGATT GACAGTCATC	18300
AGGATGTTGA CATCTGATCG CGACACCGAA CTAATAGGAC CATAGGTGTC AATTCCACTA	18360
ACATAGATAT TGAAAGACTG ACTCTTAGAC GTCTTAGGAG CTTCTACTTT TTTAGTGAAT	18420
CCCTTAGTAT AAATCTTTT TATCTTCGAT GCGTAGTCTG GATACTCTGA CTCGATGATG	18480
TTTTCAAAGA CACTATTTAG GACAATGGCC TTAGTCTCCC CTGCAATCAA ACTCTTGTA	18540
GCTGCCAAGT AAGACGAAC CTGGTTGACC GTCAAATCGG TATTCTGACT TGACTTGATA	18600
TCAGCTAGTA ATTTCTGAAT ATTTTCATTA TTAGTCCCAG TCGGTGCTGT CACACTCGTC	18660
AGTTGCGTAA CATTTTCGAT CTCACTATCT GCTAAAACAG CGACACTGAT TGAATATTCT	18720
GAGTAATTAG AAGTCGCATT TAAACGATTG GTCAGTCCAA CAAACTGCTG TACTGCAAAG	18780
AGCGACACAG AGCTGACAAG GATAGAGAAC ACCAACAGAA AAATAGTAAA CTTTTCAGCT	18840
TTTTTATAGA TAATCAAGAG TAGCCCTACC AAGGCAACTA GTAGGACTAA CGCAGTTACC	18900
ACTAGATTAA GATATCTAAA AGCAAGGATA TTGTAATAAGAA CAATAAAAAA	18960
CAAATAACA ATAAATAAAT AGTCAGCAAA ACTATATTAA CACTTCGCTT CACTTTCTGT	19020
GAACGTGATT TTTTAAAACG TCTACTCATG ATTAATACCT ATACATTGAA CATTATACGA	19080
TTATATCACT TTTTACGGT AATGTCTACA CCTTATTTT TACTATCTGC ATCTTTAAGT	19140
ATCTTAGTAG ACTTCCCGCG AAACAAAAAT ATAGTAAAAT GAAATAAGAA CAGAACAAAT	19200
CGTTCAGGAC AGTCAAATCG ATTTCTAACA ATGTTTGTAGA AGCAGAGGTG	19250

(2) INFORMATION FOR SEQ ID NO: 36:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21706 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

AAAGTTGAAA GACTGCTAGC TGTTTTTGAT ACCAATCGTT TCCAACCTACA GAGCAAACAG	60
TATACAAAGT TTGTTTTTGG ATGTAAGCTT CTGATGGAC AATCCAAGA AAATCAAGAA	120
ATTGCTGACC TTCAATTTTT TGCCATTGAC CAACTGCCGA ACTTATCTGA AAAACGCATT	180
ACCAAGGAGC AAATAGAGCT TCTTTGGCAG GTTTATCAAG GTCATAGGGG GCAATATCTT	240

GACTAAGAAG	ATGATTATCG	TATTTCTAAA	TCCATTTTTA	ACAACTAGCA	TGGTATAATA	300
ATATGCAGGA	AAATTTTGAA	TTATGAGGAA	GACTAGATGA	ATTTATGGGA	TATTTTCTTT	360
ACGACTCAGG	CAACCGAGCC	GCCCAAATTT	GACCTTTTTT	GGTATGTTAG	CCTATTTACG	420
CTCTTAGCCT	TAACCTTTTA	TACAGCCCAT	CGCTATCGTG	AAAAGAAGGT	TTACCAACGA	480
TTTTTCCAAA	TCTTGCAGAC	TGTTCAAGTA	ATCCTTCTTT	ATGGTTGGTA	CTGGGTCAAT	540
CATATGCCAC	TGTCAGAAAG	CCTACCCTTT	TACCATTGCC	GTATGGCTAT	GTTTGTGGTA	600
CTCTTGCTTC	CTGGTCAATC	CAAATATAAA	CAATACTTTG	CATTATGGG	AACATTGGG	660
ACATTAGCAG	CCTTTGTTTA	TCCAGTGCCA	GATGCTTACC	CTTTTCCACA	TATCACCATT	720
CTATCCTTTA	TCTTTGGTCA	TTTAGCACTC	TTGGGGAAC	CTCTAGTTTA	TCTATTGAGA	780
CAGTATAATG	CGCGATTGCT	GGATGTGAAG	GGAATTTTTC	TCATGACCTT	TGCCCTAAAT	840
GCCTTGATTT	TTGTGGTCAA	TTTGGTGACA	GGTGCGGATT	ACGGATTTT	GACAAAACCG	900
CCATTGGTTG	GGGATCACGG	TCTAGTAGCT	AATTATTTAC	TTGTTTCAAT	TGTGCTGGTA	960
GCTACTATCA	GTTTGACTAA	GAAAATCTTA	GAATCTTTT	TAGCTCAAGA	AGCAGAAAAA	1020
ATGATTGCAA	AGGAAGCTTA	ACACAGAGCT	TTCTTTTTTG	CTCTTAGAGA	GTTTTTACAA	1080
GCAGCTTATA	AAATAAGAAT	TTCTGAATAG	ACAAACTCAA	AAAATGGCTG	GGAAATTTAG	1140
GAAAAAAGCA	AGCACGATTA	AATTTTTTGT	GTTATAATAT	TTTGTGAATA	GCTATGCCTA	1200
TGTTTAGCTA	TGGAATAATA	CGAAGTGCGA	AACTTGAAG	ATAGAGAGGA	AGCGATGTAA	1260
TGGCTAGAGA	AGGCTTTTTT	ACAGGTCTAG	ATATTGGAAC	AAGCTCTGTC	AAGGTGCTTG	1320
TGGCCGAGCA	GAGAAATGGT	GAATTAAATG	TAATTGGCGT	GAGTAATGCC	AAAAGTAAAG	1380
GTGTAAAGGA	TGGAATTATT	GTTGATATTG	ATGCAGCAGC	AACTGCTATC	AAGTCAGCCA	1440
TTTCCCAAGC	GGAAGAAAAG	GCAGGCATTT	CGATTAAATC	AGTGAATGTC	GGCTTGCCTG	1500
GTAATCTTTT	GCAGGTAGAA	CCAACTCAGG	GGATGATTCC	AGTAACATCT	GATACTAAGG	1560
AAATTACGGA	TCAAGATGTT	GAAAATGTTG	TCAAATCAGC	TTTGACAAAG	AGTATGACAC	1620
CTGACCGTGA	AGTCATTACC	TTTATTCCTG	AAGAATTTAT	TGTGGATGGT	TTCCAAGGGA	1680
TTCGTGACCC	ACGTGGCATG	ATGGGGGTTC	GCCTTGAAAT	GCGTGGTTTG	CTTTATACAG	1740
GACCTCGTAC	TATCTTGAC	AATTTGCGTA	AGACGGTTGA	GCGTGCAGGT	GTTTCAGGTTG	1800
AAAATGTTAT	CATTTACCA	CTAGCAATGG	TTCACTCTGT	TTTGAACGAA	GGGGAACGTG	1860
AATTTGGTGC	TACAGTGATT	GATATGGGGG	CAGGTCAAAC	GACTGTGCGT	ACAATCCGTA	1920
ATCAAGAAGT	CCAGTTCACA	CATATTCTCC	AAGAAGGTGG	AGATTATGTA	ACTAAAGATA	1980

360

TCTCCAAGGT TTTGAAAACC TCTCGCAAAT TAGCGGAAGG CTTGAAACTG AATTACGGGG	2040
AAGCCTATCC GCCTCTTGCA AGCAAAGAAA CCTTCCAAGT AGAGGTTATT GGAGAAGTAG	2100
AAGCAGTCGA AGTGACGGAA GCCTACTTGT CAGAAATTAT TTCTGCACGA ATCAAGCACA	2160
TCCTTGAACA AATCAAGCAA GAATTAGATA GAAGGCGTCT ATTGGACCTC CCTGGTGGTA	2220
TTGTCTTAAT CGGTGGGAAT GCCATTTTAC CAGGTATGGT TGAGCTTGCT CAGGAAGTCT	2280
TTGGCGTCCG TGTCAGCTT TATGTTCCAA ATCAAGTTGG TATCCGTAAT CCAGCCTTTG	2340
CGCATGTGAT TAGTTTATCA GAATTTGCGG GTCAATTAAC AGAAGTTAAT CTTTGGCTC	2400
AGGGAGCGAT AAAAGGTGAG AATGACTTAA GTCATCAGCC AATTAGTTTT GGTGGGATGC	2460
TGCAAAAAAC AGCTCAGTTT GTACAATCAA CGCCTGTTCA ACCAGCTCCT GCTCCAGAAG	2520
TAGAGCCGGT GCGCCTACA GAACCAATGG CGGATTTCCA ACAAGCTTCA CAAAATAAAC	2580
CGAAATTAGC AGATCGTTTC CGTGGATTGA TCGGAAGCAT GTTTGACGAA TAAAGAGGAA	2640
AAATAAATTA TGACATTTTC ATTTGATACA GCTGCTGCTC AAGGGGCAGT GATTAAAGTA	2700
ATTGGTGTCG GTGGAGGTGG TGGCAATGCC ATCAACCGTA TGGTCGACGA AGGTGTTACA	2760
GGCGTAGAAT TTATCGCAGC AAACACAGAT GTACAAGCAT TGAGTAGTAC AAAAGCTGAG	2820
ACTGTTATTC AGTTGGGACC TAAATTGACT CGTGGTTTGG GTGCAGGAGG TCAACCTGAG	2880
GTGAGTCGTA AAGCCGCTGA AGAAAGCGAA GAAACACTGA CGGAAGCTAT TAGTGGTGCC	2940
GATATGTCT TCATCACTGC TGGTATGGGA GGAGGCTCTG GAACTGGAGC TGCTCCTGTT	3000
ATTGCTCGTA TCGCCAAAGA TTTAGGTGCG CTTACAGTTG GTGTTGTAAC ACGTCCCTTT	3060
GGTTTGAAG GAAGTAAGCG TGGACAATTT GCTGTAGAAG GAATCAATCA ACTTCGTGAG	3120
CATGTAGACA CTCTATTGAT TATCTCAAAC AACAATTGTC TTGAAATTGT TGATAAGAAA	3180
ACACCGCTTT TGGAGGCTCT TAGCGAAGCG GATAACGTTC TTCGTCAAGG TGTTCAGGG	3240
ATTACCGATT TGATTACCAA TCCAGGATTG ATTAACCTTG ACTTTGCCGA TGTGAAAACG	3300
GTAATGGCAA ACAAAGGGAA TGCTCTTATG GGTATTGGTA TCGGTAGTGG AGAAGAACGT	3360
GTGGTAGAAG CGGCACGTAA GGCAATCTAT TCACCACTTC TTGAAACAAC TATTGACGGT	3420
GCTGAGGATG TTATCGTCAA CGTTACTGGT GGTCTTGACT TAACCTTGAT TGAGGCAGAA	3480
GAGGCTTCAC AAATTGTGAA CCAGGCAGCA GGTCAAGGAG TGAACATCTG GCTCGGTACT	3540
TCAATTGATG AAAGTATGCG TGATGAAATT CGTGTAACAG TTGTTGCAAC GGGTGTTCGT	3600
CAAGACCGCG TAGAAAAGGT TGTGGCTCCA CAAGCTAGAT CTGCTACTAA CTACCGTGAG	3660
ACAGTGAAAC CAGCTCATTC ACATGGCTTT GATCGTCATT TTGATATGGC AGAAACAGTT	3720
GAATTGCCAA AACAAAATCC ACGTCGTTTG GAACCAACTC AGGCATCTGC TTTTGGTGAT	3780

361

TGGGATCTTC	GCCGTGAATC	GATTGTTTCGT	ACAACAGATT	CAGTCGTTTC	TCCAGTCGAG	3840
CGCTTTGAAG	CCCCAATTTC	ACAAGATGAA	GATGAATTGG	ATACACCTCC	ATTTTTCAAA	3900
AATCGTTAAG	TAAATGAATG	TAAAAGAAAA	TACAGAACCT	GTTTTTCGAG	AAGTTGCAGA	3960
GGCTAGTCTG	AGTGCTCATC	GAGAGAGTGG	TTCGGTCTCT	GTCATTGCAG	TTACCAAGTA	4020
TGTAGATGTA	CCGACAGCGG	AAGCCTTGCT	TCCGCTAGGT	GTCCATCATA	TCGGTGAAAA	4080
TCGTGTAGAT	AAGTTTCTGG	AAAAATATGA	AGCTTTAAAA	GATCGAGATG	TGACTTGCCA	4140
TTTGATTGGT	ACCTTGCAAA	GACGTAAGGT	GAAAGATGTC	ATTCAATACG	TTGATTATTT	4200
CCATGCATTG	GACTCAGTAA	AGCTAGCAGG	GGAAATTCAA	AAAAGAAGTG	ACCGAGTCAT	4260
CAAGTGTTTC	CTTCAAGTAA	ATATTTCTAA	AGAAGAAAGC	AAACACGGTT	TTTCGAGAGA	4320
GGAAGTCTG	GAAATCTTGC	CAGAGTTAGC	CAGACTAGAT	AAGATTGAAT	ATGTTGGTTT	4380
AATGACGATG	GCACCTTTTG	AGGCTAGCAG	TGAGCAGTTG	AAAGAGATTT	TCAAGGCGGC	4440
CCAAGATTTA	CAAAGAGAAA	TTCAAGAGAA	ACAAATTCCA	AATATGCCTA	TGACCGAGTT	4500
AAGTATGGGA	ATGAGTCGTG	ATTATAAAGA	AGCGATTCAA	TTCGGTTCCA	CTTTTGTTCG	4560
TATAGGTACA	TCATTTTTTA	AGTAGGAGAG	AACCATGTCT	TTAAAAGATA	GATTCGATAG	4620
ATTTATAGAT	TATTTTACGG	AGGATGAGGA	TTCAAGTCTC	CCTTATGAAA	AAAGAGATGA	4680
GCCTGTGTTT	ACTTCAGTAA	ATTCTTCACA	GGAACCGGCT	CTCCCAATGA	ATCAACCTTC	4740
ACAGTCGGCT	GGCACAAAAG	AGAACAATAT	CACCAGACTT	CATGCAAGAC	AACAGGAATT	4800
GGCAAATCAG	AGTCAGCGTG	CAACGGATAA	GGTCATTATA	GATGTTTCGT	ATCCTAGAAA	4860
ATATGAGGAT	GCAACAGAAA	TTGTTGATTT	ATTGGCAGGA	AACGAAAGTA	TCTTGATTGA	4920
TTTTTCAGTAT	ATGACAGAGG	TGCAGGCTCG	TCGTTGTTTG	GACTATTTGG	ATGGAGCTTG	4980
TCATGTTTTA	GCTGGAAATT	TGAAAAAGGT	AGCTTCTACC	ATGTATTTGT	TGACACCAGT	5040
GAACGTTATT	GTAAATGTTG	AAGATATCCG	TTTACCAGAT	GAAGATCAAC	AGGGTGAGTT	5100
CGGTTTTGAT	ATGAAGCGAA	ATAGAGTACG	ATAATGATTT	TTTTAATTTCG	TATGATTTAT	5160
AATGCAGTGG	ATATTTACTC	CCTGATTTTG	GTAGCCTTCG	CTGTCATGTC	TTGGTTTCCA	5220
GGTGCCACG	AATCCAGTTT	AGGTCGTTGG	ATTGTAGCGT	TGGTGAAACC	AGTGCTTGCT	5280
CCCTTGCAAC	GCCTGCCTTT	ACAGATAGCG	GGTCTTGATT	TATCTGTTTG	GGTTGCGATT	5340
GTTTTGGTTC	GATTTTTAGG	AGAAAACCTA	GTGCGTTTTC	TGGCGATGAT	AGGATGAATA	5400
AAGGGATTTA	TCAGCATTTT	TCCATAGAAG	ATCGTCCATT	TCTTGACAAG	GGAATGGAAT	5460
GGATAAAGAA	GGTAGAAGAT	AGCTATGCTC	CTTTTTTAAC	TCCTTTTATC	AATCCTCATC	5520

362

AGGAGAAGCT	ATTAAAGATT	TTGGCCAAAA	CCTATGGTCT	TGCTTGTAGC	AGTAGTGGGG	5580
AATTCGTCTC	GAGTGAGTAT	GTTCGAGTTT	TATTATACCC	AGATTATTTT	CAACCAGAGT	5640
TTTCAGATTT	TGAAATATCT	CTCCAGGAAA	TTGTGTATTC	CAATAAATTT	GAACATTTAA	5700
CGCATGCTAA	GATTTTAGGG	ACAGTCATCA	ATCAATTAGG	GATTGAACGG	AAACTTTTTG	5760
GAGATATCCT	AGTAGATGAA	GAACGGGCGC	AGATTATGAT	TAATCAGCAG	TTTCTTCTTC	5820
TCTTTCAAGA	TGGACTAAAG	AAAATTGGTC	GTATACCTGT	TTCGCTGGAG	GAACGTCCTT	5880
TCACCGAGAA	AATAGATAAG	CTAGAACAGT	ATCGAGAACT	GGATTTATCT	GTGTCTAGTT	5940
TTCGATTAGA	TGTTCTTTTA	TCAAATGTTT	TGAAACTATC	TAGGAATCAA	GCAAACCAGT	6000
TGATTGAAAA	GAAACTTGTC	CAAGTAAATT	ATCATGTGGT	AGACAAATCA	GATTACACTG	6060
TTCAAGTTGG	AGACTTGATT	AGTGTGAGAA	AATTTGGTCG	CTTGAGATTA	CTTCAAGATA	6120
AGGGACAAAC	GAAAAAAGAG	AAGAAAAAAA	TAACCGTCCA	GTTATTATTA	AGTAAGTGAG	6180
GAATAGAATG	CCAATTACAT	CATTAGAAAT	AAAGGACAAG	ACTTTTGGA	CTCGATTCAG	6240
AGGTTTTGAT	CCAGAAGAAG	TCGATGAATT	TTTAGATATT	GTGGTTCGTG	ATTACGAAGA	6300
TCTTGTGCGT	GCGAATCATG	ATAAAAATTT	GCGTATTAA	AGTTTAGAAG	AGCGTTTGTC	6360
TTACTTTGAT	GAAATAAAG	ATTCTTGAG	CCAGTCTGTA	TTGATTGCTC	AGGATACAGC	6420
TGAGAGAGTG	AAACAGGCGG	CGCATGAACG	TTCAAACAAT	ATCATTCATC	AAGCAGAGCA	6480
AGATGCGCAA	CGCTTGTTGG	AAGAAGCTAA	ATATAAGGCA	AACGAGATTC	TTCGTCAAGC	6540
AACTGATAAT	GCTAAGAAAG	TCGCTGTTGA	AACAGAAGAA	TTGAAGAACA	AGAGCCGTGT	6600
CTTCCACCAA	CGTCTCAAAT	CTACAATTGA	GAGTCAGTTG	GCTATTGTTG	AATCTTCAGA	6660
TTGGGAAGAT	ATTCTCCGTC	CAACAGCTAC	TTATCTTCAA	ACCAGTGATG	AAGCCTTTAA	6720
AGAAGTGGTT	AGCGAAGTAC	TTGGAGAACC	GATTCCAGCT	CCAATTGAAG	AAGAACCAAT	6780
TGATATGACA	CGTCAGTTCT	CTCAAGCAGA	AATGGCAGAA	TTACAAGCTC	GTATTGAGGT	6840
AGCCGATAAA	GAATTGCTCTG	AATTTGAAGC	TCAGATTAAA	CAGGAAGTGG	AAGCTCCAAC	6900
TCCTGTAGTG	AGTCCTCAAG	TTGAAGAAGA	GCCTCTGCTC	ATCCAGTTGG	CCCAATGTAT	6960
GAAGAACCAG	AAGTAGCTCC	AATGCATCCG	ATAGGTCCAA	CACCAGCTAC	AGAAACTGTT	7020
GATTCAATAC	CGGGATTTGA	AGCACCGCAA	GAATCTGTTA	CAATTTTATA	AGAAATATTC	7080
TGAGAACAAT	ATCTTATCCT	TATATTTCCA	GCGAGCAGGA	GATGGTGTGA	GTCCTGTAAT	7140
CCCTATTGAT	AAGATTATCC	TCTCAAAAAC	TCAAGTCTGA	AGCTAGTAAG	ATTTGACGTT	7200
TCCCACGTTA	CGGGATAAGA	GGGAGAAAGA	CTAAATCTTT	TTCCGAATAA	AGGTGGTACC	7260
ACGATTTTCG	TCCTTTTTTG	AAGTCGTGGT	TTTAATTTG	TTATTATTTA	TAAAGGAGAT	7320

363

ACCATGAAAC TCAAAGACAC CCTTAATCTT GGGAAACTG AATTCCCAAT GCGTGCAGGC	7380
CTTCCTACCA AAGAGCCAGT TTGGCAAAAG GAATGGGAAG ATGCAAAACT TTATCAACGT	7440
CGTCAAGAAT TGAACCAAGG AAAACCTCAT TTCACCTTGC ATGATGGCCC TCCATACGCT	7500
AACGGAAATA TCCACGTGG ACATGCTATG AACAAGATTT CAAAAGATAT CATTGTTTCGT	7560
TCTAAGTCTA TGTCAAGATT TTACGCACCA TTTATTCTTG GTTGGGATAC TCATGGTCTG	7620
CCAATCGAGC AAGTCTTGTC AAAACAAGGT GTCAAACGTA AAGAAATGGA CTTGGTTGAG	7680
TACTTGAAAC TTTGCCGTGA GTACGCTCTT TCTCAAGTAG ATAAACAACG TGAAGATTTT	7740
AAACGTTTGG GTGTTTCTGG TGAAGTGGAA AATCCATATG TGACCTTGAC TCCTGACTAT	7800
GAAGCAGCTC AAATTCGTGT ATTTGGTGAG ATGGCTAATA AGGGTTATAT CTACCGTGGT	7860
GCTAAGCCAG TTTACTGGTC ATGGTCATCT GAGTCAGCAC TTGCTGAAGC AGAGATTGAA	7920
TACCATGACT TGGTTTCAAC TTCCCTTTAC TATGCCAACA AGGTAAAAGA TGGCAAAGGA	7980
GTCTAGATA CAGATACTTA TATCGTTGTC TGGACAACGA CTCCATTTAC CATCACAGCT	8040
TCTCGTGGTT TGACGGTTGG TGCAGATATT GATTACGTTT TGGTTCAACC TGCTGGTGAA	8100
GCTCGTAAAT TTGTCGTTGC TGCTGAATTA TTGACTAGCT TGTCTGAGAA ATTTGGCTGG	8160
GCTGATGTTT AAGTTTGGTA AACTTACCGT GGCCAAGAAC TCAACCACAT CGTAACAGAA	8220
CACCCATGGG ATACAGCTGT AGAAGAGTTG GTAATCTCTG GTGACCACGT TACGACTGAC	8280
TCTGGTACAG GTATTGTCCA TACAGCCCCT GGTTTTGGTG AGGACGATTA CAATGTTGGT	8340
ATTGCTAATA ATCTTGAAGT CGCAGTGAAT GTTGATGAAC GTGGTATCAT GATGAAGAAT	8400
GCTGGTCTTG AATTTGAAGG TCAATTCTAT GAAAAGGTAG TTCCAACGT TATTGAAAAA	8460
CTTGGTAACC TCCTTCTTGC CCAAGAAGAA ATCTCTCACT CATATCCATT TGAAGTGGCT	8520
ACTAAGAAAC CAATCATCTG GCGTGCAGTT CCACAATGGT TTGCCTCAGT TTCTAAATTC	8580
CGTCAAGAAA TCTTGGACGA AATTGAAAAA GTGAAATTCC ACTCAGAATG GGGTAAAGTC	8640
CGTCTTTACA ATATGATCCG TGACCGTGGT GACTGGGTTA TCTCTCGTCA ACGTGCTTGG	8700
GGTGTTCAC TTCTTATCTT CTACGCTGAA GATGGTACAG CTATCATGGT AGCTGAAACT	8760
ATTGAACACG TAGCTCAACT TTTTGAAGAA TATGGTTCAA GCATTTGGTG GGAACGTGAT	8820
GCCAAAGACC TCTTGCCAGA AGGATTTACT CATCCAGGTT CACCAAACGG CGAGTTCAAA	8880
AAAGAACTG ATATCATGGA CGTTTGGTTT GACTCAGGTT CATCATGGAA TGGAGTGGTG	8940
GTAAACCGTC CTGAATTGAC TTACCCAGCC GACCTTTACC TAGAAGGTTC TGACCAATAC	9000
CGTGGTTGGT TTAACATCAT ACTTATCACA TCTGTTGCCA ACCATGGCGT AGCACCTTAC	9060

364

AAACAAATCT	TGTCACAAGG	TTTTGCCCTT	GATGGTAAAG	GTGAGAAGAT	GTCTAAATCT	9120
CTTGGAAATA	CTATTGCTCC	AAGCGATGTT	GAAAAACAAT	TCGGTGCTGA	AATCTTGCGT	9180
CTCTGGGTAA	CAAGTGTTGA	CTCAAGCAAT	GACGTGCGTA	TCTCTATGGA	TATCTTGAGC	9240
CAAGTTTCTG	AAACTTACCG	TAAGATTTCGT	AACACTCTTC	GTTTCTTGAT	TGCCAATACA	9300
TCTGACTTTA	ACCCAGCTCA	AGATACAGTC	GCTTACGATG	AGCTTCGTTC	AGTTGATAAG	9360
TACATGACGA	TTCGCTTTAA	CCAGCTTGTC	AAGACCATTG	GTGATGCCTA	TGCAGACTTT	9420
GAATTCTTGA	CGATCTACAA	GGCCTTGGTG	AACCTTATCA	ACGTTGACTT	GTCAGCCTTC	9480
TACCTTGATT	TTGCCAAAGA	TGTTGTTTAC	ATTGAAGGTG	CCAAATCACT	GGAACGCCGT	9540
CAATGCAGA	CTGTCTTCTA	TGACATTCTT	GTCAAATCA	CCAAACTCTT	GACACCAATC	9600
CTTCCTCACA	CTGCGGAAGA	AATCTGGTCA	TATCTTGAGT	TTGAAACAGA	AGACTTCGTC	9660
CAATTGTGAG	AATTACCAGA	AGTTCAAAC	TTTGCTAACC	AAGAAGAAAT	CTTGGATACA	9720
TGGGCAGCCT	TCATGGACTT	TCGTGGACAA	GCACAAAAAG	CCTTGGAAGA	AGCTCGTAAT	9780
GCAAAAGTTA	TCGGTAAATC	ACTTGAAGCA	CACCTGACAG	TTTATCCAAA	TGAAGTTGTG	9840
AAAACCTCTAC	TCGAAGCAGT	AAACAGCAAT	GTAGCACAAAC	TTTTGATCGT	GTCTGAGTTG	9900
ACCATCGCAG	AAGGACCAGC	TCCGGAAGCT	GCCCTTAGCT	TCGAAGATGT	AGCCTTCACA	9960
GTTGAACGTG	CTACTGGTGA	AGTATGTGAC	CGTTGCCGTC	GTATCGACCC	AACAACAGCA	10020
GAACGCAGCT	ACCAGGCAGT	TATCTGTGAC	CACTGTGCAA	GCATCGTAGA	AGAAAACTTT	10080
GCGGAAGCAG	TCGCAGAAGG	ATTTGAAGAG	AAATAAGATT	GAAAAGTCTA	GGCAAAATTC	10140
AATTTGAGAA	GAAAAGACAA	CTAATTTTAT	AGTCTATTAA	ACGCATTGTA	TCACGTTTTT	10200
GAATACCTGA	TATGATGCGT	TTTTTATTTA	TTTTAAAAAT	TTGCGAGGTA	TGACTTTTTTA	10260
TACTCAACAA	GAATCAAAGA	GAAACTTAGC	AAGCTAACAG	TAGTAAGATA	AAATAGGAAT	10320
TTGATATTAG	GGATAAGATT	GGTAAATAGT	GTAATATTTT	TACAACAATA	AATTTATATA	10380
GTATTTCTG	GTTTCTGAAA	AGTATTATAT	TTTATTTTCAT	ATTATACAAA	TTTTTATTTT	10440
ATAATATCAG	AACATACTTT	TTTTAAAGC	AAATATGATA	CAATTTTATT	TGAAAAAAT	10500
AAAAAAGGAG	ATTTTATTAT	AAAATTAAAA	AGACTTGCTT	TAATTAGTGG	TATCGTCGGT	10560
CTTGTGGGAG	GAATTTTACT	TCTTATTGGT	CCTTTTGTCT	TGTTGGGAAT	AGCGGTAAAC	10620
ACAGCTGCTA	CAACTCTTAA	TGGAGGAGCT	ACTGCAGGGG	CTTTTTCAGG	TGTAGCCTTA	10680
CTCTTGAATG	CCTTGAAGAT	TGCAAATCTT	GTTCTTGCTA	TCATTGCTAT	TGTTTACTAT	10740
AAAGGAGATA	AGCGTGTAGG	TGCAGCTCCG	TCTGTACTAA	TGATTGTTTC	TGGTGGAGTT	10800
AGTCTCATTC	TATTCGTTTC	TTAGGATGGG	TTGGGGGGAT	TTTTGCTATT	ATCGGAGGAT	10860

365

CTCTATTCCT TTCAACATTG AAGAAATTC AATCAGAAGA ATAAAAGGTA TTTTAGCATG	10920
AAAAGAACAA AAAAGTTTAT CGGTATAGGA GTAGCTCTAT TATCTCTTTC TCTTCTAGTT	10980
GCATGTGGAA CATAAAGTTC AAAGAATACT TCAACAAGTA ATGATGAGAA GACAGTAGCA	11040
ACATCCAATA GTTCAAAAGA AACAACTACT TTCGATACAC CGGTTGTAAC AGACGATGCG	11100
ATTGAATCAA TACGCACTTA TGCAGATTAT ATAGATCTTT ATAAAAATAT TTTTGATGAT	11160
TATTTTACTA AAGCTGAGGA AGGTTTCAAA GGCATAGCTA TGGAAAATAA TGACTCGTTT	11220
ACTAACTAA AAGAGTCAAC TCAAAAATTA TTCGATGCGC AGAAAAAAG GTTAAATAAT	11280
GAAGATAGAA TAGAAACAAC CAAAAACAAT GTGATTGCCA AACATTGTCA AACAGTCCTT	11340
TCCTTTTGG TTTTGACTAG CTTTTTGTG AAAAATTGTG TAAAATAGAA TAGATAAACG	11400
AGGGGAAACC TCGGAAAATT TAAAGGAGAA TCCATCTAAT GGTAAAATTG GTTTTGTCTC	11460
GCCACGGTGA GTCTGAATGG AACAAAGCTA ACCTTTTCAC TGGTTGGGCT GATGTTGATT	11520
TGTCTGAAAA AGGTACACAA CAAGCGATTG ACGCTGGTAA ATTGATCAA GAAGCTGGTA	11580
TCGAATTGA CCAAGCTTAC ACTTCAGTAT TGAAACGTGC TATCAAAACA ACTAACTTGG	11640
CTCTTGAAGC TTCTGACCAA TTGTGGGTTC CAGTTGAAAA ATCATGGCGC TTGAACGAAC	11700
GTCACTACGG TGGTTTGACT GGTAAAAACA AAGCTGAAGC TGCTGAACAA TTTGGTGATG	11760
AGCAAGTTCA CATCTGGCGT CGTTCATACG ATGTATTGCC TCCAAACATG GACCGTGATG	11820
ATGAGCACTC AGCTCACACA GACCGTCGTT ACGCTTCACT TGACGACTCA GTTATCCCAG	11880
ATGCTGAAAA CTTGAAAGTG ACTTTGGAAC GTGCTCTTCC ATTCTGGGAA GATAAAATCG	11940
CTCCAGCTCT TAAAGATGGT AAAAACGTAT TCGTAGGAGC TCACGGTAAC TCAATCCGTG	12000
CCCTTGTAAC ACACATCAAA GGTTTGTGAG ATGACGAGAT CATGGACGTG GAAATCCCTA	12060
ACTTCCCACC ATTGGTATTC GAATTCGACG AAAAATTGAA CGTCGTTTCT GAATACTACC	12120
TTGGAAAATA AAAAATTGTA AGTCTAGAAT TGATTCTAG GCTTTTATG TTAGTATGGA	12180
AGTATGATAA GGAATAAAAA ACAAGATTAT GTACTGGCCT ACAAGCAACC AGCTTCAACC	12240
ACTTACATGG GTTGGGAAGA AGAAGCTTTA CCGATAGGCA ATGGTCTTTT AGGAGCAAAA	12300
GTATTGGGCC TTATAGGGGC TGAACGGATT CAATTTAATG AAAAAAGTCT CTGGTCTGGA	12360
GGTCCACTTC CTGATAGTTC AGATTATCAG GGTGGAAATC TTCAGGATCA GTATGTTTTT	12420
TTAGCTGAGA TTCGGCAGGC TTTGGAGAAG AGAGATTACA ATCTGGCTAA GGAAC'TGGCT	12480
GAGCAGCACC TAATTGGGCC AAAAACGAGT CAATATGGGA CCTATCTGTC TTTTGGGGAT	12540
ATTCACATTG AGTTCAGCCA GCAAGGTACG ACTTTGTCTC AGGTGACGGA CTATCAGAGA	12600

366

CAGCTGAATA TTAGTAAGGC ACTTGCGACG ACTTCTTATG TCTATAAGGG AACGCGATTT	12660
GAACGTAAAG CTTTGTGCGAG TTTTCCAGAT GATCTCTTGG TTCAATGTTT TACTAAGGAA	12720
GGGTTGGAAA CTCTAGATTT TACTATAGAA CTATCCTTGA CCTGTGATTT GGCTTCTGAT	12780
GGAAAGTATG AGCAGGAAAA ATCTGATTAC AAGGAGTGTA AGTTGGATAT TACTGATTCT	12840
CATATCTTGA TGAAGGGAAG AGTTAAGGAT AATGATCTGC GGTTCGCTAG TTATCTAGCT	12900
TGGGAAACGG ATGGAGATAT TAGAGTTTGG TCAGATAGGG TTCAGATATC AGGAGCCAGT	12960
TATGCCAATC TCTTCTTGGC CGCTAAGACG GATTTTGCCC AAAATCCTGC TAGCAATTAT	13020
CGCAAGAAAC TAGATTTAGA GCAACAGGTG ATAGACTTGG TGGACACAGC TAAAGAAAAG	13080
GGCTATACCC AATTGAAATC AAGGCATATC GAGGACTACC AAGCCTTATT CCAGCGTGTT	13140
CAATTGGATT TGAAGCTGA TGTGACGCA TCCACTACAG ATGATTTGTT AAAAAATTAT	13200
AAGCCACAAG AAGGGCAGGC TTTGGAGGAG CTGTTCTTCC AGTATGGACG GTATTTATTG	13260
ATTAGTTCGT CCAGAGACTG CCCAGATGCT CTACCAGCTA ACCTACAGGG AGTCTGGAAT	13320
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TATTGGCCAG CCTATGTAC CAATCTCCTA GAGACGGTCT TTCCAGTCAT CAACTATGTA	13440
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CAAATCACTC AATCTGGTCG AATCAGGGAG TGGTATGAGG AGGAAGAGCA GTATTTTCAA	13980
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CGTGGAGATG GCGGCACAGG CTGGTCCAAG GCTAATAAGA TCAATCTCTG GGCGCGTTTG	14160
GGAGATGGCA ATCGAGCCCA TAAATTATTG GCAGAGCAGT TAAAGACATC CACCTTGCAA	14220
AATCTTTGGT GTAGCCATCC TCCTTTTCAG ATAGATGGTA ATTTTGGTGC TACTAGTGGC	14280
ATGGCAGAAA TGTTACTCCA GTCTCATGCA GCTTATCTGG TACCTCTAGC TGCCCTACCT	14340
GATGCTTGGT CAACAGGTTT TGTTCAGGC TTAATGGCAC GTGGACATTT TGAAGTGAGC	14400

367

ATGAGCTGGG AAGATAAAAA ACTCTTACAG TTGACCATT TATCAAGGAG TGGAGGAGAT	14460
TTGCGAGTTT CTTATCCAGA TATTGAGAAG AGTGTGATTA AAATGAATCA AGAAAAATA	14520
AAAGCGAAAT GCATGGGGAA AGATTGTATT TCGGTGGCAA CAGCAGAAGG TGATCTTGTT	14580
CAATTTTATT TTTAAGAAGA TGTTATAAGG CAGTAATTG AACTGCCTT TTAATAAGGA	14640
TTTAAGAATA TAAGCAGTTT TCAACTAGTT GAAAAACGT TATAATGATA ATAGGAAGTA	14700
ATACTCAATG AAAATCAAAG AGCACAACT AGGAAGCTAG CCGCAGGTG CTCAAAACAG	14760
TGTTTTGAGG TTGCAGATGG AAGCTGACGT GGTTTGAAGA GAGATTTTCG AGGAGTATAA	14820
TTTGTTTGAT AGAGGGTGGG TCTGATGGCT TATATTGAGA TGAAACACTG TTACAAGCGT	14880
TATCAGGTG GGGACACGGA GATTGTGGCC AATTGTGATG TGAATTTTGA GATTGAAAAG	14940
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CAAGGGGCGT TTTTATCCA TCTTGATCCT GATGATGTTG GGATCTCTAG CCTTAGTAGG	15660
CCTCAAAGTA ACCAGTCCCA ACATGGAGGC GACAGCTAAT GCTTATTTAA CAACTGCTCA	15720
AACCTTGAT TGGCAGTCA TGTCTAACTA TGGCTTGAT CAAGCAGACC AAGAAGAACT	15780
AAAACAGACG GAGGGCGCAG AGGTCGAGTT TGGCTATTG ACAGATGTGA CTATGGATAA	15840
TGGGCAGGAT GCCATTCGGC TGTACTCCAA ACCAGAGCGA ATTTCAACCT TTCAGCTAAG	15900
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AGACCATACT TATACCATTA CTGGTTTGT GGATTCGGCT GAAATCCTCT CCCAGCGAGA	16080
TATGGGCTAC GCAGGAAGTG GAAGTGGGAC TCTGACAGCC TATGGGGTGA TTTTACCTAG	16140

368

TCAATTTGAT CAGAAAGTCT ACAATATAGC TCGTTTGAAA TATCAAGATT TAGCGGGTTT	16200
AAATGCCTTT TCATCAGCTT ATGAAGAAAA ATCCAAGCAA CATCAAGAAG AGCTTGAACA	16260
AATTTTATCA GATAATGGCA AGGTACGTCT GCAACTTTTG AAAAAAGAAG GACAAGAGTC	16320
TCTAGACAAG GGGCAAGAGA CCCTTGACAA GGCTCAGACT AATTTGCAGG AAGGCAAGCG	16380
TCGTTTAGCA GCTGCTCAAG CTCGTATACA GGCTCAAGAA AGTCAACTAG CCTTGTTC	16440
TCAAGTTCAG AGAGAGCAGG CTAGTGCTCA ACTTACCCAA GCCAAGCAGG AATTGGGCAA	16500
GGAGAGGAC AAAGTAAAGC AAGCTGAACA AAATCTAGCC CAAGAAAAGG AAAAATTAGA	16560
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GACCATGCCA GGTGGTCAGG GCTATCTTAT GTATAGCAAT GCTTCATCCA GTATTCGAGC	16680
AGTGGGCAAT ATCTTTCCTG TGGTACTTTA TGCCGTAGCA GCCATGGTGA CCTTTACGAC	16740
CATGACTCGC TTTGTAGACG AAGAGCGAAC TCATGCAGGG ATTTTAAAGG CCTTGGGTTA	16800
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ACTTCATGAC GAAGCAGCCC AGCTTCTACT TCCTAAACCT CCTGTCAAAG GAGCTAAAAT	17100
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CCGCAACATC TTTTCGTTATA AGCAGAGAAT GTTGATGACA ATCTTTGGTG TGGCAGGTTT	17220
TGTAGCTCTG CTCTTTGCAG GTTTGGGAAT CCAATCTTCT GTAGCAGGAG TTCCGTCTAA	17280
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TCAGGACAAG GTAGAGCTAG CAGAAGTGT GAAAGGGCAG GAGATACTAG CCTACCAGAA	17400
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TCTTATGATG ATAGAGAAGG AAGATTGAC TCCCTTTATC CATCTTCAAC ATCATCAGCA	17520
GGAGCTGACA TTAAAAGATG GCATCGTTAT TACAGCTAAA CTCGCCCAGC TGGCAGGTGT	17580
CAAGGTGGG CAGACTTTAG AAATTGAAGG TAAGGAACTA AAGGTCGTTG CTATTACTGA	17640
GAACTACGTT GGTCACTTTA TTTATATGAG TCAGGCTAGC TATGAGCAAC TTTACGGACA	17700
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AAGTCAGGCG GGCTTGCTTA TGAATCAATC TGCGGTGTCC AGCGTTGTCC AAAATGCTTC	17820
AGCCATTCTG CTCTTCGACT CTATCGCTAG CTCACTCAAT CAGACCATGA CCATCTTGGT	17880
CATCGTATCG GTTCTATTAG CTATTGTCAT CCTTTACAAT CTGACCAATA TCAACGTAGC	17940

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CCTCTACATT	TACCGTGAGA	CGATTGTGCT	GTCCCTTGTG	GGAATCGTAC	TTGGTCTGAT	18060
AGCTGGTTTC	TATTTACACC	AATTTTGTAT	TCAAATGATT	TCGCCTGCGA	CTATTCTCTT	18120
TTATCCGCAG	GTAGGCTGGG	AAGTCTATGT	AATCCCAGTG	GCAGCAGTAA	GCATCATTTT	18180
GACCTTGCTT	GGTTTCTTCG	TCAATTATTA	TCTGAGAAAG	GTTGATATGT	TAGAAGCCCT	18240
GAAATCTGTA	GAGTAAGGTA	GTTATTTTTA	GCTGATTGAA	CTTCTATTTA	CTAATATTCA	18300
AAAATCCTCC	GTTTCAAAGA	GCAGGGAAC	CTTTGTGACA	GAGGATTTTT	TCTATAGGGC	18360
TTTAGCAGCT	GCAATTGCGG	CTTCGAAGTT	TGGCTCAGAA	TTGATATTAT	CCACGTATTC	18420
AACGTAGCGA	ATCGTATTGT	CAGTATCGAG	GACAAAGACT	GCGCGTGCTA	ATAGGTGCCA	18480
TTCGTTGATC	AAGAGGGCAT	AATCGCGCCC	GAAAGAATGG	TCAAAGTAGT	CTGAAAGCAT	18540
AATGGCATTG	TCAAGGCCTT	CAGCACCGCA	CCAACGTTTT	TGAGCAAAAG	GTAGGTCCAT	18600
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ATCAAAATCA	GCCAGAGATT	TTTTAGAAAG	ATCTGTTGTA	GTAAGAGAAA	AATCAAGCGC	18780
CTTGTCGCCG	ACTGTAGATT	GTTTACCTGT	AAAGCTCACA	GGATTTCGGA	GAAAAGTTAC	18840
CATAGGATAC	TCCAATCTTT	TTTCTTCCAT	TTTAGCTGAA	ACAGTCGGAA	TTTTCCAATG	18900
ATTTGACCGG	AAATATGGGC	ATAGAAAAAA	CGCCAGCTCA	TGTGAGAATG	ACGTTTTTCA	18960
TAGGTTTATT	TTGCCAATCC	TTCAGCAATC	TTGTCAAGGT	TGTATTTTAT	CATGCTGTAG	19020
TAGCTGTGCG	CTTCTTTACC	TTGTTCTGCG	ATAGAGTCAG	TAAAGATTTG	AGCGTAGATT	19080
GGGATGTTTG	TGTCTTGAGA	AACAGTTTTC	ATTGGACGGT	CATCCACACT	TGATTCTACA	19140
AAGAGTGATG	GAACTTTGTG	TTGGCGAAGT	TTTTCAACCA	AGGTCTTGAT	TTGTTTCAGGA	19200
GTTCCCTCTT	CTTCAGTATT	GATTTCCCAG	ATGTAAGCAC	TTGGGACACC	ATAGGCTTTA	19260
GAGAAGTATT	TGAATGCTCC	TTCGCTGGTT	ACAATGAGTT	TCTTTTCAGC	AGGGATCTTA	19320
TTAAATTTAT	CCTTACTTTC	TTTATCAAGT	TTGTCTAACT	TATCAGTATA	TTCTTTGAGA	19380
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TTAGCAAAAA	TAATACCGTT	TTCAAGGTTA	AGCCAAGCGT	GTGGGTCTTC	TTTTCTTTT	19500
TCATTTTGAC	CTTCAAGGTA	GATAACATCA	ACGCCGTGCG	TGACTGCGAA	GTAGTCTTTG	19560
TTTTTCAGTT	TCTTGGCATT	TTCTACCAAT	TTTGTAACC	AAGCATTGCC	ACCTGTTTCA	19620
AGGTTGATAC	CGTTATAGAA	AATCAAATTA	GCCTCAGAAG	TTTTCTTAAC	GTCTTCAGGA	19680

370

AGTGGTTCGT ATTCGTGTGG GTCTTGCCCA ATCGGAACGA TACTATGAAG GTCAATTTTG	19740
TCACCAGCAA TATTTTGTAGT AATATCAGCG ATGATTGAGT TTGTAGCAAC AACTTTTGTAGT	19800
TTTTTGACCAG AAGTTGTATC TTTTTCCTCG CTAGCACATG CTACAAGAAT GATTGCAGAA	19860
AGAAAGAGAA CGAGTAATGT ACCTAATTTT TTCATTAGAT CCTCCAATTT ATTAGGGCTT	19920
TGCCCCTTAT TTTAACAAAT GTTTATTTT CAGTTTCAA TATCGTTGTT TGGGAGCGAT	19980
AAAGAAGCTA ATGAGAAAGA AACTAGCAGC TGTAAGCACG ATACTAGAAC CTGCCGCAAC	20040
ATTAAACTA TAGCCAATAA AGAGTCCCAA AACTGAAGCA GTAGCTCCGA AGGTTGAGGA	20100
AAGGAAAATC ATACTTTTCA GACTATTAGC ATACAGATAA GCAGTTGCAG CTGGGGTAAT	20160
CAGCATGGCT ACAATCAGGA TAGTTCCGAC ACTTTGCATG GCTGTCACAG ACACGAGAGT	20220
CAGGAGTACC ATGAGAAGGT AGTGATAGAA ATTGACAGGC ATTCCCATGG CTTTAGCCAA	20280
GAGTTCATCA AAGGAAGTTA TCAAGAGTTG CTTGAAGAAA ATCCAGATTA ACAAGAGGAT	20340
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GGCTAAGAAA GAAGAAAAGG TAATGCCGAT GGCGGTATCG CTTTTGATAA TCGAGTTTCC	20520
TTTGATGTAG GTAATGATGA TGGCAGCTAG CAATCCAAAG ACAATGGCTC CGATAAAGAA	20580
GTCAAGGCC AAGATGAAGG ATAGGGCTAC ACCTGGTAAG ACAGCATGTG AAATGGCATC	20640
TCCCATGAGT GACATCCCGC GTAGAATAAT GAAACATCCC ACAGCTCCAG CTACAATCCC	20700
GACGACAATA GCTGTATCA AGGCATTTTG TAGGAAATGG AATTTTGTCA ATCCATCGAT	20760
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AGTAAGACTT GATCGAAGTA GTGGGGAATC TTGCTGAGGT CGTGGTGAAC GATGAGAACC	20940
GTCTTCCAG CTTTTTCAA ATCTCTCAGC GTATTCATGA TGATTTCTC ACTGACAGAG	21000
TCAATCCCAG CAAAGGTTT ATCCAAGAGG ATATAGTCGG CTTCCTGCAC CAAACATCTG	21060
GCAATCAAGA CCCGCTGGAA TTGACCTCCA GACAGTTGAC TAATTTGACG TTCAGCGTAG	21120
TCAGCTAGGC CGACGATTTT AAGGGCCTCT TGCACTTTCT TCCAATGTTT AGCCTTTAAA	21180
CTTCGAAAGA GAGGAATAGA GGGAAATAGT CCTAACGAGA CGCATTCCTT GACCTTGATG	21240
GGAAAGTTGT AGTCGATATT GATTTTTTGT TCGACATAGG CAATTCGGTG TAAGGATTTT	21300
TTAACTTCCT TGTCATCGAG AAATGCCTGA CCTTGATGTG GGATAATTCC CAACATACCT	21360
TTTAATAGTG TTGATTTCCC AGCGCCGTTT GGACCAATGA TGCCGGTAAT TGTTGGTCCA	21420
TGGAGCACTA GTGAAATATC CTTAAGTGCC AACGTTTCTT TGTAGGAGAC ACTGAGGTTT	21480

371

TCGATACGTA TCATAAACTT GTATTCCTCC TGTCTCTTAA TATACATTAA AAAAAAAATT	21540
AAGTCAAGTT AATTTTGTAA AAAATTAAAA TAATACTGA AAAATAGATT CTAAAGATAA	21600
CTTTCAGGAT AAATTTCTAA ATTATAAAAC GCATAGTATC AAGTGTAATA AACTTGGAAT	21660
TATGCGTTTT ATCATGGAAA GATTTTTTAT AATAGCTAAA AAATAA	21706

(2) INFORMATION FOR SEQ ID NO: 37:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6171 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GATCCCCAGG AAAAACCGAG GTTTTCCCAA TCAATCGTTA CTGTCATATT CCACTCCTTA	60
TTCTAAAAAC CTATTTCTTA TATTCTACAC TATTTTCTTA AAATAGCAAG TATATTTTGT	120
AATTTTCAGA AAATTTCTCC AATAAAAACC AACTCTTAGA ACTGATTCTT CATTTCACTT	180
ATTTATCTTC AGTAACTACT TCCTGAAGAT AAGCGTCAAA AACTTCTTCA TCTGAAATCG	240
TGTCAGAAAT GAAGCTTCCA TTGCTAGTGC GTTCTGACAA GTTCAAGTCT TGCAATCGGC	300
TTTCATAGAT TGTTCCTTTA TTGGATTGGA CAAGCAGAGT TTGGTCGTTC ACATCCACTT	360
CCGTACTGAA GAAATCGCCA ACAAATCCTT GCTCTGCAAC TGCTCCTGCC AAGAAGACAC	420
GATGCGGTTT GTTTTTC AAC TCACGCAAGA CTTGTAATCC TCGTTTGGCA CGGCTGGTTG	480
CTAGAATTTT CTCAATGGAA ACACGTTTCA AGCTTCCACG CTGGGTCAAG AGGTAGAAGG	540
ACGAAGTATT ACAGATAAAG CCAGATTGGA GGACATCATC TTCTTTCAAA TTCATAGCCT	600
TGACACCTGC TGCCTTAGCA CCGACAACCG GAACCTCTTC GATATTGAAA CGCAGGGCAT	660
AACCATTTTG ACTAACCAAG ACAACATCAT CTAGTTTAAT CGGAGCCACT GCTACAATCT	720
GATCTGTATC GTCTTTGAGC TTAGCATACT TGACAGACTT AGATCTATAG GTCCGCCATG	780
GAGTGAATTC TTTTCGCTCT ACCCGTTTGA TTTGACCAAG GCGAGTCACT GCAAAGTAGG	840
TTGTGCGATC GTCAAACTGA TCCAGTACTT CCACATAAAG GATTTCTTCA TTCGTTCAA	900
AGTTTGTGAT GGTTTGGCTC AGATGCTCTC CGATGTCTT CCAACGAATA TCTGCCAACT	960
CATGGATTGG TCTGTAGATG ACATTTCCAA GACTTGTGAA CATCAAGAGG TGCTGGGTTG	1020
TCTTGGCAGA TTGAACAAAA ATCAAACGGT CATCATCACG CTTGCCAATT TCTTCCAAGG	1080
TGGAAGCCGC AAAGGAACGT GGAAGGTGAC GCTTGATGTA ACCTGCCTTG GTCACGCTGA	1140

372						
CGTAGGTATC	TTCCTCAGCG	ATAAGACTAG	CTGTATCAAT	CTCAATTGCT	TTCGCAGTGT	1200
CTTCTAAAGA	ACTCAAACGA	GGAGTTGCAA	ATTTCTTCTT	GACCTCACGA	AGTTCTTTCT	1260
TCATGAGATT	GTACATAGTC	CTTTCATCAC	CGATAATAGC	CGCCAGCATA	GCAATCTTCT	1320
CACGAAGCTC	TGCTTCTTCT	TCCTGCAAGA	CAACCACATC	GGTATTGGTC	AAACGGTACA	1380
GTTGCAAAGT	TACGATAGCC	TCAGCCTGTT	CTTCCGTAAA	ATCATAGCTA	ACTTTGAGGT	1440
TTTCCTTGGC	GTCCGCCTTA	TTCTCAGAAG	CACGGATAAG	AGCAATGACT	TCATCCAAAA	1500
TCGAAATCAC	ACGAATCAAA	CCTTCGACGA	TATGGAGACG	TTTCTCAGCC	TTTTCTTTGT	1560
CAAAGCGTGA	ACGCGCCAAA	ATCACTTCTC	GACGGTGAGC	GATATAGCTA	GACAGGATTG	1620
GAACAATCCC	AACCTGACGA	GGTGTGAAAT	TGTC AATCGC	CACCATATTA	AAGTTGTAGT	1680
TGATTTGTAG	GTCCGGTGAC	TTAAATAAGT	AGTTGAGAAC	AAGCTCAGTA	TTAGCGTCTT	1740
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TCCCAGCTAC	CTTGTTATTA	ACACGAACAT	CATCGATTTT	CTTGACTAGA	TTGGCCTTAT	1860
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TTTCAGTCTT	GGAACGAACA	ACCACGCGCC	CTTCCCAGT	CTCATAAGCT	TTCTTGATTT	1980
CATCACGACC	CTGAATAATA	GCCCCTGTAG	GGAAGTCTGG	TCCAGGCAAG	AATTCATGA	2040
GTTTATCAAT	CTTTGCAGTT	GGGTGGTCAA	TCATGTAAAC	TGCAGCATCT	ATGACCTCAG	2100
CTAAATTATG	GGGAGGAATG	TCTGTGGCAT	AACCAGCCGA	AATCCCAGTC	GAACCATTGA	2160
CCAAGAGGTT	TGGAAAGGCT	GCTGGCAAGA	CCGTTGGTTC	TTTCTCCGTA	TCGTCAAAGT	2220
TCCATGCAAA	AGGAAC TGTC	TTTTTCTCGA	TATCCTGAAG	AAGGTAGCCT	GCAATTT CAG	2280
ACAAACGTGC	CTCAGTATAA	CGCATAGCCG	CAGGAGGATC	TCCGTCCATA	GAACCGTTAT	2340
TACCGTGCAT	TTCAACTAGA	ATCTCACGAT	TTTTCCAGTT	CTGTGACATA	CGAACCATGG	2400
CATCATAGAT	AGAAGAATCC	CCGTGTGGGT	GGAAATTCCC	CATGATGTTC	CCGACTGACT	2460
TGGCCGACTT	ACGGTAGCTC	TTGTCAAAAAG	TATTGCTATC	CTTATTCATA	GAATAAAGAA	2520
TACGGCGCTG	AACCGGCTTC	AACCCATCAC	GAATATCTGG	CAAAGCCCGG	TCTTGAATAA	2580
TGTACTTGGA	GTAGCGACCA	AAGCGCTCTC	CCATGATGTC	CTCCAGGGAC	ATGTTTTGAA	2640
TGTTAGACAT	AAGATACAAA	GCCCATAAAA	TACCAAGTGA	AAATAGAAAA	TTCTTGAAGT	2700
AAGCAAAC TC	ACAAGAGAAT	TTATCTTTTT	CACACAGTAT	CTAGGGCGTG	TTCAA CTCT	2760
TTCAAAGAAT	GTAGAGTAGG	TTTTTATGCA	GTAAAAGATA	TTTTACGGGA	ATTCTCTCCG	2820
TGTT CAGTTA	CGATAAGTAA	CCAAACTATC	CTGTTTGTAT	TTTTCAATAT	GAAAATCTGG	2880
TTTTCCAAAA	TTAGTCTTAG	TTTGTGTCTT	AGCCGCTCCC	TTAAGCGCCT	CTTTGAGATA	2940

373

AGCACTCATA GCAGATTCTT CATTAATAAT CCTGCAATTT TTTCAAACCA AGATTTTCAA	3000
ACTGCTTTTT CACATAGTCA TTCACATCCG ACTCTAATTT CCAGTTTACT AACATATTAT	3060
TTTCTTTTCAT TAAAACACTG TCGTTTCTTC TAGCGTAAAC TTGACATTAT CTTCAATCCA	3120
TTTACGGCGT GGTTCACCT TATCTCCCAT GAGAACATTG ACGCGGCGTT CGGCGCGCGC	3180
TAAATCTTCA ATTGTGACAC GGATGAGGGT ACGTGTTCCT GGGTTCATGG TTGTTTCCCA	3240
GAGCTGGTCC GCATTCATCT CACCAAGTCC TTTGTATCGT TGGAGGGTAG CGCCTTTACC	3300
GAAGTGTFTA CGGAGTCTT CTAGTTCTCC GTCGTCCAA GCGTAGGCCA CTTCTTCTTT	3360
CTTGCTTTTA CTTTGGACA TCTTGTAAG AGTGAGGAG GCAATATAGA CATGACCTGC	3420
CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT GGATATGGGC	3480
ACCGTCGGTA TCCGCATCGG TCATGATAAT GATCTTATCA TAGTTGGCAT CTTCAATAGA	3540
GAAGTCTGCT CCAACACCCG CACCAATGGT ATAAATCATG GTATTGATCT CTTCAATTTT	3600
GAGGATATCC GCCATCTTGG CCTTGGCTGT ATTGACAACC TTACCACGAA GAGGTAGAAT	3660
AGCCTGGAAC TTGCGGTAC GACCTTGTTT GGCAGAACCA CCGCAGAGT CCCCCCAAC	3720
TAGATAGAGT TCATTCTTAG CAGGATTCTT AGATTGGGCT GGGGTCAATT TCCCAGACAA	3780
CAAGCCCTTA TCTTCTTGT TTTCTTCCC ATTTGGGCTC TCATCACGCG CTTACGTGC	3840
TGCTTACGA GCATCACGGG CCTTGATAGC CTGCGGATG AGGTAGAAG CTAATCCCC	3900
ATTTTCCATA AGGAAAAAG TCAACTTATC AGCCACTATT CCATCCACAA CTGGGCGAGC	3960
TAGGGGGCTT CTTAGTTTAT CCTTGGTCTG TCCTTCAAAC TGCAAGTGTT CTTCAGGAAC	4020
TAAGATAGAA AGAACGGCCG CTAGTCCCTC ACGATAGTCT GAACCTTCAA GGTTTTTATC	4080
TTTTTCCTTG AGAAGACCTG TTTTACGTGC ATAGTCATTC ATGACCTTGG TAATGGCAGA	4140
CTTGAGTCCT GTCTCGTGCG TTCCACCGTC CTTGGTGCGA ACGTTATTGA CAAAAGATAG	4200
AATGTTATCT GAGAATCCGT CATTGTACTG GAGGGCTACT TCCACTTGAA AACCATTGTC	4260
TTCCCCTCA AAGTAAAGAA CTGGCGTCAA GATTTCCTTA TCTTCGTTGA GATAAGAAAC	4320
AAAATCTTGT ACTCCATTCT CATAGTGGAA CTCAATCGCT TCATTTGTTC GCTTGTCCTG	4380
TAAAGACAAG GTCACATTTT TCAAGAGAAA GGCTGATTCA TTAAGGCGCT CTGAAATGGT	4440
ATTGTACTTG AAATCTGTCG TAGAAAATAT AGTCGCGTCA GGCATAAAAG TAACTTTGGT	4500
GCCTGTTTTA GACTTGGGTG CTGTACCGAT TTTCTTCAA GTCGTGACAG GTTTTCCACC	4560
ATTTTCGAAA CGTTGCTTGT AAAGTGCACC ATCACGGGTA ATTTCAACTT CTAACCAGCT	4620
AGAAAGGGCG TTAACAACGG AAGAACCAC TCCGTGAAGT CCACCTGATG TCTTATAGCC	4680

374

ACCTTGACCG AATTTCCTC CGGCATGAAG AATGGTAAAG ATAACCTCAA CAGTTGGAAT	4740
TCCCATAGCG TGCATACcTG TCGGCATCCC ACGTCCATGG TCTTGAACCG TTAGACTACC	4800
GTCTTTATTG ATAGTTACAT CAATACGATC ACCAAACCCA GACAAGGCTT CATCGACTGC	4860
ATTATCAACG ATTTCCCAA CTAGGTGATG AAGACCAGCG CCATCGGTCG ATCCAATATA	4920
CATCCCTGGA CGTTTTCGGA CCGCATCCAA CCCTTCTAGC ACCTGAATAG CATCATCATT	4980
ATAATTGTTA ATATTGATTT CCTTTTTTGA CACAAGGAAC CTCCTATTCTG TTCATCTTTA	5040
CTATTCTACA GGTTTTCCAA GGATTTTGCA AAATTTTCTT TTTCTCCGATG TGACAATTTC	5100
AGCAGAGATT CTCTGCTTTT CTTTCCCAAT TCATGATATA ATAGGAGTAT GATTACAATA	5160
GTTTTATTAA TCCTAGCCTA TCTGCTGGGT TCGATTCCAT CTGGTCTCTG GATTGGACAA	5220
GTATTCTTTC AAATCAATCT ACGCGAGCAT GGTTCTGGTA AACTGGAAC GACCAACACC	5280
TTCCGCATTT TAGGTAAGAA AGCTGGTATG GCAACCTTTG TGATTGACTT TTTCAAAGGA	5340
ACCCTAGCAA CGCTGCTTCC GATTATTTTT CATCTACAAG GCGTTTCTCC TCTCATCTTT	5400
GGACTTTTGG CTGTTATCGG CCATACCTTC CCTATCTTTG CAGGATTTAA AGGTGGTAAG	5460
GCTGTCGCAA CCAAGTGTGG AGTGATTTTC GGATTTGCGC CTATCTTCTG TCTCTACCTT	5520
GCGATTATCT TCTTTGGAGC TCTCTATCTT GGCAGTATGA TTTCAGTGC TAGTGTCACA	5580
GCATCGATTG CGGCTGTTAT CGGGGTCTG CTCTTTCCAC TTTTGGTTT TATCCTGAGT	5640
AACTATGACT CTCTCTTCAT CGCTATTATC TTAGCACTTG CTAGTTTGAT TATCATTCGT	5700
CATAAGGACA ATATAGCTCG TATCAAAAAT AAAACTGAAA ATTTGGTCCC TTGGGGATTG	5760
AACCTAACCC ATCAAGATCC TAAAAAATAA AATGCCAGTT CTGTACTGCC CCCAAACAGT	5820
TAGACAAATA ATTTATCCAA AGGATTTAGT TCTGTACTGC ACAGGACTAA GTCCTTTTAG	5880
TTTTACCTTA ATTCGTTTGT TGTGTAGTA ATCAATATAG TCTATAATGG CTGTGTTCCAA	5940
TTGATTAAAGT GATTTAAATG TTTTCTCATA GCCATAAAC ATTTCCGATT TTAAATGCC	6000
AAAGAAAGAT TCCATCCTAC CGTTGTCTTG GCTGTTGCCC TTACGTGACA TGGATGCTTG	6060
AATCCCTTA CTCTCTAGGA ACCGATGATA AGAATCGTGT TGGTATTGCC AGCCTTGCTC	6120
ACTATGGAGA ATCGTATTCT CGTAGTGCTT CTCTGTGAAT GCCTGTTCCA A	6171

(2) INFORMATION FOR SEQ ID NO: 38:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18475 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

375

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

TATTACAAAT AAAAAACGG AGGAGTGCTT TATGAAAGCC TATACTTATG TTAAACCAGG	60
ACTTGCTTCT TTTGTTGATG TAGACAAACC AGTTATTTCGC AAGCCAACAG ACGCTATTGT	120
GCGTATTGTA AAAACCACTA TTTGTGGAAC AGACCTCCAT ATTATCAAAG GGGATGTTCC	180
TACTTGCCAA AGTGGTACCA TTCTTGCCCA CGAAGGGATT GGGATTGTTG AAGAAGTTGG	240
GGAAGGAGTT TCCAACCTCA AAAAAGGTGA CAAGGTCTTG ATTTCTTGCG TCTGTGCCTG	300
TGGTAAATGC TACTACTGTA AAAAAGGAAT TTATGCTCAC TGTGAAGACG AAGGGGGCTG	360
GATTTTCGGT CACTTGATTG ATGGTATGCA GGCTGAATAT CTACGTGTCC CTCATGCAGA	420
TAATACTCTT TACCATACTC CAGAAGACTT GTCAGATGAA GCTTTGGTTA TGCTGTCAGA	480
CATTCTGCCT ACTGGATATG AAATGGTGT CTTAAAAGGG AAAGTAGAAC CTGGTTGCAG	540
CGTAGCCATT ATTGGTTCAG GTCCAGTTGG ATTTGGCTGCT CTTTAAACAG CCCAATCTTA	600
TTCAACAGCT AAATTGATTA TGGTAGACCT AGACGATAAC CGCTTGAAA CTGCCCTATC	660
ATTCCGTGCG ACTCATAAGG TTAATCTTTC AGACCCTGAA AAAGCCATTA AAGAAATTTA	720
TGATTTGACA GATGGTCGTG GTGTGGATGT CGCTATCGAA GCTGTTGGTA TTCCTGCAAC	780
ATTTGATTTT TGTCAAAGA TTATCGGTGT AGACGGAACG GTTGCCAACT GTGGTGTGCA	840
TGGTAAACCA GTTGAATTCG ATTTAGATAA ACTTTGGATT CGCAACATCA ATGTAACAAC	900
TGGTTTGGTA TCTACAAATA CGACTCCACA ATTTGTTGAAA GCACTTGAAA GTCATAAGAT	960
TGAACCGGAA AAATTGGTAA CTCACTATTT CAAACTCAGT GAAATTGAAA AAGCCTACGA	1020
AGTCTTCAGT AAGGCAGCAG ACCACCATGC CATTAAGGTC ATTATCGAAA ACGATATCTC	1080
AGAAGCCTAA GTAGTAAAAA TATTTTGTGA CATAAGTAAA TAGAAATTCA GTCATCCATC	1140
AGATGGCTGG ATTTTATATC AAAAAATTAA GAAATGAGCA TATTTCTTTC CTTGTCTGGC	1200
GGAATTGGTT ATAATATACG GTACAAAGGA ATGAATGAAT ATGTATCGTG TTATAGAAAT	1260
GTACGGAGAT TTTGAACCGT GGTGGTTCTT AGAAGGTTGG GAAGAAGATA TTGTAGCAAG	1320
TAGAAAATTT GACCAGTATT ATGATGCTCT CAAATACTAC AAAACTTGCT GGTTTAGATT	1380
GGAACAAGAA TCGCCTCTTT ATAAAAGTAG AAGCGACTTG ATGACCATTT TTTGGGACCC	1440
GGAAGACCAA CGCTGGTGTG ATGAATGTGA TGAGTATTTA CAACAATACC ATTCTTTGGC	1500
TCTTTTGCA GATGAGCAGG TTATCCCAGA CGAAAACTA CGCTCAGGCT ATGAAAAACA	1560
AACCACTCAG GAAAGGAATC GTTCTTGCCG TATGAAATTA AAATAGAGAA AAGTAACTTT	1620
TTTGGAGTTG CTTTTTTTAT TTTTCTAACT CTTTGCGAAT AGTATAGGTG AGGAGGTAAG	1680

376

TATGGTTCAA GAAATTGCAC AAGAAATCAT TCGTTCAGCT CGGAAAAAAG GGACGCAGGA	1740
TATCTATTTT GTCCCTAAGT TAGACGCCCTA TGAGCTTCAT ATGAGGGTAG GAGACGAGCG	1800
CTGTAAAAAT GGTAGCTATG ATTTTGAAAA GTTTCAGCC GTTATCAGTC ACTTTAAGTT	1860
TGTGGCGGGT ATGAATGTGG GAGAAAAAAG ACGTAGTCAA CTGGGTTCCCT GTGATTATGC	1920
CTATGACCAT AAGATAGCGT CTCTACGTTT ATCTACTGTA GGCGATTATC GGGGGCATGA	1980
GAGTTTGTTT ATCCGTTTGT TGCACGATGA GGAGCAGGAC CTGCATTTTTT GGTTCAGGA	2040
TATTGAAGAA TTAGGCAAGC AGTACAGGCA ACGGGGACTC TATCTTTTGT CTGGTCCGGT	2100
TGGGAGTGGT AAGACGACCT TGATGCATGA ATTGTCCAAG TCACTCTTTA AAGGACAGCA	2160
AGTTATGTCC ATCGAAGATC CTGTCGAAAT CAAGCAGGAC GACATGCTTC AGTTGCAGTT	2220
GAACGAAGCA ATCGGCCCTAA CCTATGAAAA TCTAATCAAA CTTTCCTTGC GTCATCGACC	2280
AGATCTCTTG ATTATCGGAG AAATTCGTGA CAGCGAGACG GCGCGTGCAG TGGTCAGAGC	2340
TAGTTTGACA GGTGCGACAG TCTTTTCAAC CATTCACGCC AAGAGTATCC GAGGTGTTTA	2400
TGAGCGTCTG CTGGAGTTGG GTGTGAGTGA AGAAGAATTG GCAGTTGTTC TGCAAGGAGT	2460
CTGCTACCAG AGATTAATCG GGGGAGGAGG AATCGTTGAC TTTGCAAGCA GAGATTATCA	2520
AGAACACCAA GCAGCCAAGT GGAATGAGCA AATTGACCAG CTTCTTAAAG ATGGACATAT	2580
CACAAGTCTT CAGGCTGAGA CGGAAAAAAT TAGCTACAGC TAAGCAAAAA AATATCATCA	2640
CCCTATTTAA CAATCTCTTT TCTAGCGGTT TTCATCTGGT GGAGACTATC TCCTTTTGTAG	2700
ATAGGAGTGC TTTGTTGGAC AAGCAGTGTG TGACCCAGAT GCGTGTGGGC TTGTCTCAGG	2760
GGAAATCATT CTCAGAAATG ATGGAAAGTT TGGGATGTTT AAGTGCTATT GTCCTCAGT	2820
TATCCCTAGC TGAAGTTCAT GGCAATCTCC ACCTGAGTTT GGGAAAGATA GAAGAATATC	2880
TGGACAATCT GGCTAAGGTC AAGAAAAAAT TGATTGAAGT AGCGACCTAT CCCTTGATTT	2940
TGCTGGGTTT TCTTCTCTTA ATTATGCTGG GGCTACGGAA TTACCTGCTC CCACAACCTG	3000
ATAGTAGCAA TATTGCCACC CAAATTATCG GTAATCTGCC CCAAATTTTT CTAGGCATGG	3060
TAGGGCTTGT TTCCGTGCTT GCCCTTTTAG CACTCACTTT TTATAAAAGA AGTTCTAAGA	3120
TGAGTGTCTT TTCTATCTTA GCACGCCTTC CCTTTATTGG AATCTTTGTG CAGACCTACT	3180
TGACAGCCTA TTATGCACGT GAATGGGGGA ATATGATTTC ACAGGGAATG GAGTTGACGC	3240
AGATTTTCA AATGATGCAG GAACAAGGTT CCCAGCTCTT TAAAGAAGTC GGTCAAGATC	3300
TGGCTCAAAC CCTGAAAAAT GGCCGTGAAT TTTCTCAGAC GATAGGAACC TATCCTTTCT	3360
TTAGGAAGGA ATTGAGTCTC ATCATAGAGT ATGGGGAAGT TAAGTCCAAG CTGGGTAGTG	3420
AGTTGGAAT CTATGCTGAA AAAACTTGGG AAGCCTTTTT TACCCGAGTC AACCGACCA	3480

377

TGAATTTGGT GCAGCCACTG GTTTTTATCT TTGTGGCACT GATTATCGTT TTACTTTATG	3540
CGGCAATGCT CATGCCCATG TATCAAAATA TGGAGGTAAA TTTTAAAAAT GAAAAAATG	3600
ATGACATTCT TGA AAAAAGC TAAGGTAAA GCTTTTACAT TGGTGGAGAT GTTGGTGGTC	3660
TTGCTGATTA TCAGCGTGCT TTTCTTGCTC TTTGTACCTA ATCTGACCAA GCAAAAAGAA	3720
GCAGTCAATG ACAAAGGAAA AGCAGCTGTT GTTAAGGTGG TGGAAAGCCA GGCAGAACTT	3780
TATAGCTTAG AAAAGAATGA AGATGCTAGC CTAAGAAAGT TACAAGCAGA TGGACGCATC	3840
ACGGAAGAAC AGGCTAAAGC TTATAAAGAA TACAATGATA AAAATGGAGG AGCAAATCGT	3900
AAAGTCAATG ATTAAGGCCT TTACCATGCT GGAAAGTCTC TTGGTTTTGG GACTTGTGAG	3960
TATCCTTGCC TTGGGCTTGT CCGGCTCTGT CCAGTCCACT TTTTCAGCGG TAGAGGAACA	4020
GATTTTCTTT ATGGAGTTTG AAGAACTCTA TCGGGAAACC CAAAAACGCA GTGTAGCCAG	4080
TCAGCAAAAG ACTAGTCTGA ACTTAGATGG GCAGACGCTT AGCAATGGCA GTCAAAAGTT	4140
GCCAGTCCCT AAAGGAATTC AGGCCCATC AGGCCAAAGT ATTACATTTG ACCGAGCTGG	4200
GGGCAATTCTG TCCCTGGCTA AGGTTGAATT TCAGACCAGT AAAGGAGCGA TTCGCTATCA	4260
ATTATATCTA GGAAATGGAA AAATTAAACG CATTAAGGAA ACAAAAAATT AGGGCAGTGA	4320
TTTTACTGGA AGCAGTAGTC GCTCTAGCTA TCTTTGCCAG CATTGCGACC CTCCTTTTGG	4380
GACAAATCA AAAAAATAGG CAAGAGGAAG CAAAAATCTT GCAAAAGGAA GAAGTCTTGA	4440
GGGTAGCTAA GATGGCCCTG CACACGGGGC AAAATCAGGT AAGCATCAAC GGAGTTGAGA	4500
TTCAGGTATT TTCTAGTGAA AAAGGATTGG AGGTCTACCA TGGTTCAGAA CAGTTGTGTTG	4560
CAATCAAAGA GCCATAAGGT CAAGGCTTTT ACCTTGTTAG AATCCCTGCT TGCCCTCATT	4620
GTCATCAGTG GGGGATTACT CCTTTTCAA GCTATGAGTC AGCTCCTCAT TTCAGAAGTT	4680
CGCTACCAGC AACAAAGCGA GCAAAAGGAG TGGCTCTTGT TTGTGGACCA ACTTGAGGTA	4740
GAATTAGACC GTTCGCAGTT CGAAAAAGTA GAAGGCAATC GCCTATACAT GAAGCAAGAT	4800
GGCAAGGACA TCGCCATCGG TAAGTCAAAG TCAGATGATT TCCGTAAAAC GAATGCTCGT	4860
GGTCGAGGTT ATCAGCCTAT GGTTTATGGA CTCAAATCTG TACGGATTAC AGAGGACAAT	4920
CAACTGGTTC GCTTTCATTT CCAGTTCCAA AAAGGCTTAG AAAGGGAGTT CATCTATCGT	4980
GTGGAAAAAG AAAAAAGTTA AGGCAGGTGT TCTCCTCTAC GCAGTCACCA TAGCAGCCAT	5040
CTTTAGTCTT TTGTTGCAAT TTTATTTGAA CCGACAAGTC GCCCACTATC AAGACTATGC	5100
TTTGAATAAA GAAAAATTGG TTGCTTTTGC TATGGCTAAA CGAACCAAAG ATAAGGTTGA	5160
GCAAGAAAGT GGGGAACAGT TTTTAAATCT AGGTCAGGTA AGCTATCAAA ACAAGAAAAC	5220

378

TGGCTTAGTG	ACGAGGGTTC	GTACGGATAA	GAGCCAATAT	GAGTTTCTGT	TTCCTTCAGT	5280
CAAAATCAAA	GAAGAGAAAA	GAGATAAAAA	GGAAGAGGTA	GCGACCGATT	CAAGCGAAAA	5340
AGTGGAGAAG	AAAAAATCAG	AAGAGAAGCC	TGAAAAGAAA	GAGAATTCAT	AGTCAATTCA	5400
ACTATAATGC	GTTGAATCCA	GAATAGTCCA	CTGTAGTTTC	TAGAAAATTG	CTGGAAATGG	5460
ATGTTAAGCT	CCAATTCATT	TGTTTATATC	TTATTTCAGT	TACTATACT	TTGTGCTAAA	5520
TTAAAGATAT	GAAACATGAT	TTTAACCACA	AAGCAGAAAC	TTTCGATTCC	CCTAAAAATA	5580
TCTTCCTCGC	AAACTTGGTA	TGTCAAGCAG	CCGAGAAACA	GATTGATCTT	CTATCAGACA	5640
AAGAAATTTT	AGATTTCGGT	GGTGGCACGG	GTCTATTAGC	CTTGCCCTTA	ACCCCTAGCC	5700
AAGCAGGCTA	AGTCAGTCAC	TCTTGTAGAC	ATTTCTGAGA	AAATGTTGGA	GCAAGCTCGT	5760
TTGAAAGTGG	AGCAGCAAGC	AATCAAGAAT	ATCCAGTTTT	TGGAGCAAGA	TTTACCGAAA	5820
AATCCCTTGG	AGAAAGAGTT	TGATTGCCTT	GCTGTAGTC	GGGTCTTCA	TCATATGCCT	5880
GATTTGGATG	CGGCTCTCTC	ACTGTTTCAT	CAACATTGGA	AGGAAGATGG	GAAACTCATC	5940
ATTGCTGATT	TTACCAAGAC	AGAAGCTAAT	CATCATGGAT	TTGATTTAGC	TGAACTGGAA	6000
AACAAGCTAA	TTGAGCATGG	TTTTTCATCT	GTGCATAGTC	AGATTCTCTA	TAGTGCTGAA	6060
GACCTGTTTC	AAGGAAATCA	CTCAGAATTC	TTTTTAATAG	TAGCCCAAAA	ATCACTCGCC	6120
TAGTCAGGGA	GTGATTTTTT	TATAAGGATG	GAAAAAAGAA	GGGAAATTTG	GTAAGATAGG	6180
AATATGGATT	TTGAAAAAAT	TGAACAAGCT	TATACCTATT	TACTAGAGAA	TGTCCAAGTC	6240
ATCCAAAGTG	ATTTGGCGAC	CAACTTTTAT	GACGCCTTGG	TGGAGCAAAA	TAGCATCTAT	6300
CTGGATGGTG	AAACTGAGCT	AAACCAGGTC	AAGGAGAACA	ATCAAACCCT	TAAGCGTTTA	6360
GCACTACGCA	AAGAAGAATG	GCTCAAGACC	TACCAGTTTC	TCTTGATGAA	GGCTGGGCAA	6420
ACAGAACCCT	TGCAGGCCAA	TCACCAGTTT	ACACCGGATG	CTATTGCTTT	GCTTTTGGTG	6480
TTTATTGTGG	AAGAGTTGTT	TAAAGAGGAG	GAAATTACTA	TCCTCGAAAT	GGGTCTCTGG	6540
ATGGGAATTC	TAGGCGCTAT	TTTCTTGACC	TCGCTTACTA	AAAAGGTGGA	TTACTTGGGA	6600
ATGGAAGTGG	ATGATTGCTT	GATTGATCTG	GCAGCTAGCA	TGGCAGATGT	AATTGGTTTG	6660
CAGGCTGGCT	TTGTCCAAGG	AGATGCCGTT	CGCCACAAAA	TGCTCAAAGA	AAGCGATGTG	6720
GTCATCAGTG	ACTTGCCTGT	CGGCTATTAT	CCTGATGATG	CCGTTGCGTC	GCGCCATCAA	6780
GTGCTTCTA	GCCAAGAACA	TACTTACGCC	CATCACTTGC	TCATGGAACA	AGGGCTTAAG	6840
TACCTCAAGT	CAGACGGATA	CGCTATTTTT	CTAGCTCCGA	GTGATTTGTT	GACCAGTCCT	6900
CAAAGTGATT	TGTTAAAAGA	ATGGCTGAAA	GAAGAGGCGA	GTCTGGTTGC	TATGATTAGT	6960
CTGCCTGAAA	ATCTCTTTGC	TAATGCCAAA	CAATCTAAGA	CTATTTTTAT	CTTACAGAAG	7020

379

AAAAATGAAA TAGCAGTAGA GCCTTTTGTT TATCCACTTG CTAGCTTGCA AGATGCAAGT	7080
GTTTAAATGA AATTTAAAGA AAATTTTCAA AAATGGACTC AAGGTACTGA AATATAAAAT	7140
AGATTTTGTT ATAATAGTTG AAAACGCTTA AAAAGGGGTA TCATGTTATG AAAAAACAA	7200
TTGCAATCAA TGCAGGAAGT TCAAGTTTGA AATGGCAATT ATACTTAATG CCAGAAGAAA	7260
AAGTATTGGC GAAAGGTTTG ATTGAACGTA TCGGTTTGAA AGATTCAATT TCAACTGTAA	7320
AATTTGACGG CCGTTC TGAA CAACAAATTT TGGATATTGA AAATCATATA CAAGCCGTTA	7380
AAATTTTATT GGATGACTTG ATTCGTTTCG ATATTATCAA GGCTTATGAC GAGATTACAG	7440
GTGTTGGACA TCGTGTGTT GCTGGTGGAG AATATTTCAA AGAATCAACA GTTGTGAGG	7500
GAGATGTTTT AGAAAAAGTT GAAGAGTTGA GTTGTGTTGGC TCCTCTACAC AACCCGGCCA	7560
ATGCAGCAGG TGTTTCGTGCC TTCAAGGAAT TGTGCGCAGA CATTACCAGT GTAGTTGTTT	7620
TTGATACTTC CTTCACACA AGTATGCCAG AGAAAGCTTA TCGCTACCCT CTACCAACAA	7680
AATATTACAC AGAAAAACAAG GTTCGTAAAT ACGGTGCTCA TGGTACAAGT CACCAGTTTG	7740
TAGCAGGAGA AGCTGCAAAA CTCTTGGGAC GTCCATTAGA AGACTTGAAG TTAATTACCT	7800
GTCATATTGG TAACGGAGGC TCAATTACAG CTGTGAAAGC CGGCAAATCT GTAGACACTT	7860
CTATGGGGTT CACTCCTCTT GGTGGTATTA TGATGGGAAC GCGTACAGGG GATATTGATC	7920
CAGCTATCAT TCCTTATTTA ATGCAATATA CAGAGGATTT TAACACACCA GAAGATATCA	7980
GTCGTGTTCT TAACCGTGAA TCAGGTCTTT TGGGAGTTTC TGCTAATTCT AGCGATATGC	8040
GCGATATAGA AGCAGCTGTA GCAGAAGGGA ATCACGAGGC TAGCTTGGCT TATGAAATGT	8100
ATGTTGACCG TATCCAAAAA CATATCGGTC AGTACCTTGC AGTGCTAAAT GGAGCAGATG	8160
CCATTGTTTT CACAGCAGGT GTCGGTGAAA ATGCAGAGAG TTTCCGTCGT GATGTAATCT	8220
CAGGGATTTT GTGGTTTGGT TGTGATGTTG ATGATGAAAA GAATGTCTTT GGCGTTACAG	8280
GAGACATCTC AACAGAGGCA GCTAAAATCC GTGTCTTGGT TATTCCAACA GATGAAGAAT	8340
TAGTCATTGC CCGTGACGTT GAACGCTTGA AAAAATAAGT GAAACTAAAA AAATATTCAA	8400
TACAAGGAGT TGGGAAAGTT ATTTTCCAG CTTCTTTTTC TGATGAAATT GTCCAAAACC	8460
TTGCTATGAT TGGCTTTTTT GAAAAATATG GTATAATAGT AGTAATTTAA TAGATGGAGT	8520
TGAGTTTGA AGAAAAACTT TCGTGTAATA AGAGAGAAAG ATTTTAAGGC GATTTTCAAG	8580
GAGGGGACAA GTTTTGCTAA TCGCAAATTT GTGGTCTACC AATTAGAAAA CCAGAAAAAC	8640
CGTTTTCGAG TAGGTCTATC AGTTAGCAAA AAACGGGGA ATGCCGTCAC TAGAAATCAA	8700
ATTAAGCGAC GGATTCGGCA TATTATCCAG AATGCAAAAG GGAGTCTGGT AGAAGATGTC	8760

380

GACTTTGTTG TCATTGCTCG AAAAGGAGTC GAAACCTTGG GATACGCAGA GATGGAGAAA	8820
AATCTACTCC ATGTATTAAA ATTATCAAAG ATTTACCGGG AAGGAAATGG GAGTGAAAAA	8880
GAAACTAAAG TTGACTAGTT TGCTAGGACT GTCTCTGTTA ATCATGACAG CCTGTGCGAC	8940
TAATGGGGTA ACTAGCGATA TTACAGCCGA ATCGGCTGAT TTTTGGAGTA AATTGGTTTA	9000
CTTCTTTGCG GAAATCATTC GCTTTTATC GTTTGATATT AGTATCGGAG TGGGGATTAT	9060
TCTCTTTACG GTCTTGATTC GTACAGTCCT CTTGCCAGTC TTTCAGGTGC AAATGGTGGC	9120
TTCTAGGAAA ATGCAGGAAG CTCAGCCACG CATTAAGGCG CTTCGAGAAC AATATCCAGG	9180
TCGAGATATG GAAAGCAGAA CCAAAC TAGA GCAGGAAATG CGTAAAGTAT TTAAAGAAAT	9240
GGGTGTCAGA CAGTCAGACT CTCTTTGGCC GATTTTGATT CAGATGCCGG TTATTTTGGC	9300
CCTGTTCCAA GCCCTATCAA GAGTTGACTT TTAAAGACA GGTCATTCT TATGGATTAA	9360
CCTTGGTAGT GTGGATACAA CCCTTGTCT TCCGATTTTA GCAGCAGTAT TCACCTTTT	9420
AAGTACTTGG TTGTCCAACA AAGCTTTGTC TGAGCGAAAT GGCGCTACGA CTGCGATGAT	9480
GTATGGGATT CCAGTCTTGA TTTTATCTT TGCAGTTTAT GCGCCAGGTG GAGTCGCCCT	9540
ATACTGGACA GTGTCTAATG CTTATCAAGT CTTGCAAACC TATTTCTTGA ATAATCCATT	9600
CAAGATTATC GCAGAGCGCG AGGCCGTAGT ACAGGCACAA AAAGATTGG AAAATAGAAA	9660
AAGAAAAGCC AAGAAAAAG CTCAGAAAAC GAAATAAATA AGGAGGAATC TGGTAGTGGT	9720
AGTATTTACA GGTCAACTG TTGAAGAAGC AATCCAGAAA GGATTGAAAG AATTAGATAT	9780
TCCAAGAATG AAGGCTCATA TCAAAGTCAT TTCTAGGGAG AAAAAGGCT TTCTTGGTCT	9840
ATTTGGTAAA AAACCAGCCC AAGTGGATAT TGAAGCGATT AGTGAAACGA CTGTTGTCAA	9900
AGCAAATCAA CAGGTAGTAA AAGGCGTTC GAAAAAATC AATGATTTGA ACGAGCCTGT	9960
GAAGACGGTT ACTGAAGAAA CCGTTGACCT TGGTCATGTG GTTGATGCTA TAAAAAAAT	10020
AGAGGAAGAA GGTCAAGGTA TTTCTGATGA AGTCAAGGCT GAAATCTTAA AACATGAAAG	10080
ACATGCCAGC ACTATCTTAG AAGAACTGG TCACATTGAG ATTTTAAATG AACTTCAAAT	10140
CGAGGAAGCG ATGAGGAAG AAGCAGGCG TGATGACCTT GAAACTGAGC AAGACCAAGC	10200
TGAAAGTCAA GAACTAGAAG ACTTGGGCTT GAAAGTTGAA ACGAACTTG ATATTGAACA	10260
AGTAGCTACG GAAGTAATGG CTTATGTTCA AACGATTATT GATGACATGG ATGTTGAGGC	10320
TACACTTTCA AATGATTATA ACCGTCGTAG CATCAATCTA CAAATTGACA CCAACGAACC	10380
AGGTCGTATT ATCGGCTACC ATGGTAAAGT CTTGAAGGCC TTGCAACTGT TGGCTCAAAA	10440
TTATCTTTAC AACCGCTATT CCAGAACCTT CTACGTTACA ATCAATGTCA ATGATTATGT	10500
CGAACACCGT GCAGAAGTCT TGCAGACCTA TGCGCAAAAA TTGGCGACTC GTGTTTGGGA	10560

381

AGAAGGGCGC AGTCATAAAA CAGATCCAAT GTCAAATAGC GAACGCAAGA TTATCCATCG	10620
TATTATTTCA CGTATGGATG GCGTGACTAG TTA CTCTGAA GGTGATGAGC CAAATCGCTA	10680
TGTTGTTGTA GATACAGAAT AAGTAAAAATC AGGTTTATCC TGATTTTTTG CTAGTTAGAG	10740
GAGGTAAAC TGATGTTGAA TAAGATAAGA GACTATTTAG ACTTTGCTGG TTTGCAGTAC	10800
CGTAATCCTG ATAAAGCGGG AGCAGAGCGA GAGAAGATGC TGGCATTCCG CCACAAAGGA	10860
CAAGAGGCC GAAAGGTTTT TACAGAACTG GCCAAAGCCT TTCAAGCAAG CCATCCAGAA	10920
TGGCAACTCC AACAGACTAG CCAGTGGATG AATCAGGCCC AGCGTTTGAG ACCACATTTT	10980
TGGGTTTATC TACAGAGAGA CGGACAAGTG ACAGAACCTA TGATGGCCTT ACGTTTGTAT	11040
GGGACATCTA CTGACTTTGG AATTTCTTTG GAAGTCAGTT TCATCGAACG TAAGAAGGAT	11100
GAGCAAACAC TGGGCAAGCA GGCCAAAGTT TTAGACATTC CAACCGTTAA AGGGATTTAT	11160
TATCTAACCT ACTCTAATGG TCAAAGTCAA CGGTGGGAGG CGAATGAAGA AAAGCGTCGT	11220
ACTTTACGCG AGAAGGTGAG AAGTCAAGAA GTTCGAAAAG TTTTAGTGAA GGTAGATGTT	11280
CCTATGACAG AAAATTCGTC TGAAGAAGAA ATCGTAGAAG GCTTATTGAA GTCTATTCT	11340
AAAATCTTTC CCTATTATCT AGCTACGAGA AAATAAGATA ATTTGTAAAA CATCATAAAT	11400
CATACAGTCC AAGAGTGAAC AGTCCGCTGT GTAATCTTTG GTCTTTTTGT TTGCGCTTTC	11460
GCATTATATA ATAACTTAC AAAACAATT CAAAAGGAGA ACAATTATGG AAGTCGTTTC	11520
AAGTGTTCTA AATTGGTTTT CTAGCAATAT TTTGCAGAAT CCCGCATTTT TCGTAGGTTT	11580
ATTGGTGTTG ATAGGATATG CACTTTTGAA AAAACCTGCC CATGACGTTT TTTCAGGGTT	11640
TGTTAAAGCA ACAGTAGGGT ATATGTTGCT TAACGTGGGT GCTGGTGGTT TGGTTACAAC	11700
CTTTCGTCCA ATCTTAGCAG CTCTTAAC TAATTCCTCA ATTTGGTGCAG CGGTTATCGA	11760
CCCTTACTTT GGACTTGCTG CAGCAAACAA CAAAATTGTA GCAGAGTTTC CAGATTTTGT	11820
TGGAAC TGCA ACTACAGCTC TATTGATTGG TTTTGGAATA AATATCTTGC TCGTAGCTCT	11880
TCGAAAGATT ACGAAGGTAA GAACCTCTT TATTACTGGT CACATCATGG TACAACAAGC	11940
TGCAACAGTA TCTCTTATGG TTCTATTCTT AGTACCACAA TTGCGCAATG CTTACGGTAC	12000
AGCAGCGATT GGTATCATCT GTGGACTTTA CTGGGCAGTT AGTTCAAATA TGA CTGTTGA	12060
GGCAACTCAA CGCTTGACTG GTGGTGGCGG ATTTGCGATT GGTCACCAAC AGCAATTTGC	12120
AATCTGGTTT GTAGATAAAG TAGCAGGACG CTTTGGTAAG AAAGAAGAAA GTTTAGACAA	12180
TCTTAAATTA CCTAAGTTCC TCTCAATCTT CCACGATACA GTTGTTGCAT CTGCTACCTT	12240
GATGCTCGTA TTCTTCGGAG CCATTCTTTT AATCTTGGGT CCAGACATTA TGTCTAATAA	12300

382

AGAAGTCATC	ACTTCAGGAA	CTCTATTCAA	TCCTGCTAAA	CAAGATTCT	TTATGTACAT	12360
TATCCAAACA	GCCTTTACCT	TCTCAGTTTA	CTTGTTGCGT	TTGATGCAAG	GTGTCCGAAT	12420
GTTTCGTATCT	GAGTTGACAA	ACGCCTTCCA	AGGTATTCTA	AACAAATTGT	TGCCAGGTTC	12480
ATTCCCAGCG	GTTGACGTTG	CAGCTTCTTA	TGGATTGGT	TCTCCAAATG	CTGTCTTGTC	12540
AGGATTTACC	TTTGGTTTGA	TTGGTCAATT	GATTACAATT	GTTTGTGCTCA	TCGTCTTTAA	12600
AAATCCGATT	CTTATTATTA	CAGGATTGT	ACCAGTGTTT	TTTGACAATG	CAGCCATTGC	12660
GGTCTACGCT	GATAAACGCG	GCGGATGGAA	AGCGGCTGTT	ATCCTTTCCT	TTATATCAGG	12720
TGTCCTTCAA	GTTGCTCTAG	GAGCTCTTG	TGTGGCCCTT	CTCGATTGG	CATCTTATGG	12780
TGGCTACCAT	GGAAATATCG	ACTTTGAATT	CCCATGGCTT	GGATTGGAT	ATATCTTCAA	12840
ATACCTTGGT	ATTGTTGGTT	ATGTACTTGT	GTGCTCTTTC	TTGCTTGTTA	TTCTCCTCACT	12900
TCAATTTGCC	AAAGCAAAG	ATAAAGAGAA	ATATTACAAC	GGTGAAGTTC	AAGAAGAAGC	12960
TTAGTATCTA	GAAAAGGAGA	AATAAAATGG	TTAAAGTATT	AGCAGCGTGC	GGAAATGGAA	13020
TGGGTTTCATC	AATGGTTATC	AAGATGAAGG	TTGAAAATGC	TCTCCGTAAG	CTTAATCAAA	13080
CAGATTTTAC	AGTCAATTCA	TGCAGTGTCG	GTGAAGCTAA	AGGTTTAGCA	GTAGGATATG	13140
ACATCGTAAT	CGCTTCTCTT	CATTTGATTC	AAGAATTGGA	AGGGCGAACT	AATGGGAAGT	13200
TAATTGGGCT	TGATAACTTG	ATGGATGATA	AAGAAATCAC	CGAAAAACTC	AGTCAAGCAC	13260
TACAGTAAAA	GGTTGGAGGG	GGCTGGACAG	AACTGAGAG	TTATCGTTTC	TGTCCTTCTC	13320
CCTCTTTAAA	TAAAGGAGGC	AGATATGAAT	TTAAAACAAG	CTTTAATTGA	CAATGACTCG	13380
ATCCGACTAG	GTTTAGAGGC	TAACAATTGG	AAAGAAGCAG	TCAAGGTAGC	AGTAGATCCC	13440
TTAATTGAAA	GTGGGGCAAT	TTTGCCAGAG	TATTACGATG	CTATCATTGA	ATCGACTGAA	13500
GAGTATGGGC	CTTACTATAT	CTTGATGCCA	GGTATGGCTA	TGCCCCACGC	TAGACCTGAA	13560
GCAGGTGTGC	AAAGTGATGC	CTTTTCATTG	ATTACCTTAC	AAAATCCTGT	TGTATTTTCA	13620
GATGGGAAAG	AGGTATCTGT	TTTGTGGCA	CTAGCAGCAA	CAAGTTCAAA	AATTCACACA	13680
AGTGTAGCCA	TTCCACAAAT	TATTGCCCTA	TTTGAATTAG	AAGATTCTAT	TGCACGTTTA	13740
CAGGCTTGCC	AGACTAAAGA	AGATGTCTTG	GCTATGATTG	AAGAATCTAA	GGATAGCCCT	13800
TATCTCGAAG	GATTGGATTT	GGAAAGTTAG	AAAGAGGAAT	AAAGAAATGA	CAAAAAGAAT	13860
ACCTAATTTA	CAAGTTGCAT	TAGACCATTG	AGACTTGCAA	GGAGCGATTA	AAGCAGCTGT	13920
TTCTGTTGGT	CAGGAAGTAG	ATATTATCGA	AGCTGGAAT	GTTTGTGCTG	TTCAAGTTGG	13980
AAGTGAAGTG	GCTGAAGTCT	TGCGTAGCCT	TTCCAGAT	AAGATTATTG	TGGCAGACAC	14040
AAAATGTGCT	GATGCTGGTG	GAACAGTTGC	TAAAAATAAT	GCGGTTCTGT	GAGCAGACTG	14100

383

GATGACTTGT ATCTGTTGTG CAACCATCCC TACTATGGAA GCAGCTCTAA AGGCTATCAA	14160
GACTGAACGA GGAGAACGAG GCGAAATCCA GATCGAGCTT TATGGCGATT GGACTTTTGA	14220
ACAAGCTCAG CTTTGGCTAG ATGCAGGTAT CTCACAAGCT ATTTATCACC AATCTCGTGA	14280
TGCTCTTCTT GCTGGTGAAA CTGGGGTGA AAAAGACCTT AATAAGGTTA AAAAATCAT	14340
TGACATGGGC TTCCGTGTAT CTGTAACAGG TGCTCTAGAT GTAGATACTC TCAAATCTT	14400
TGAAGGTATT GATGCTTTA CCTTTATCGC AGGTCGTGGA ATTACAGAGG CTGTGGATCC	14460
AGCAGGAGCA GCGCGTGCCT TCAAGGATGA AATCAAACGA ATTTGGGGGT AAATCATGGT	14520
ACGTCCAATT GGAATTTATG AAAAGGCAAC CCCAACACAC TGTAATGGC TAGAACGTTT	14580
AAATTTTGCC AAGGAGTAG GCTTTGATTT TGTCGAGATG TCTATTGACG AACGTGACGA	14640
GCGTTTAGCA AGACTTGACT GGAGTAAGGA AGAACGCTTG GAAGTTGTCA AAGCAATCTA	14700
TGAAACTGGT GTTCGTATTC CTTCTATCTG TTTTTCAGGC CATCGTCGCT ACCCATGGG	14760
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AGCTCAAGAC TTGGGAGTTC GTACGATTC AATTAGCTGGT TACGATGTTT ACTATGAGGA	14880
AAAGTCACCC CAGACACGCC AACGTTTAT CAAAAATTG AGAAAAGCCT GTGACTGGGC	14940
TGAAGAAGCT CAGGTGGTAC TTGCTATTGA AATTATGGAT GATCCTTTCA TCAGTAGCAT	15000
CGAAAAATAT TTGGCTATAG AAAAAGAGAT TGACTCTCCC TTCCTCTTTG TATATCCAGA	15060
TATTGGTAAT GTGTCTGCAT GGCATAATGA TATCTATAGT GAGTTTATC TTGGTCATCA	15120
TGCCATCGCA GCTCTCCATC TCAAGGATAC TTATGCAGTG ACAGAAAGTT CAAAGGCCA	15180
GTTCCGAGAT GTACCTTTCG GGCAAGGTTG TGTCAAATGG GAAGAAGCTT TCGATATTTT	15240
AAAGGAAACC AATTATAATG GACCTTTCCT AATCGAAATG TGGTCTGAAA ATTGTGAAAC	15300
AGTAGAAGAA ACACGCGCAG CCATTCAAGA GGCGCAAGCT TTTCTCTATC CACTCATTA	15360
GAAAGCAGGT TTGATGTAAG ATGAATCAAG TAATCAATGC TATGCGTAAA CGAGTCTGTG	15420
ATGCCAATCA ATCATTGCCA AAACATGGAC TTGTCAAATT TACCTGGGGG AATGTATCTG	15480
AAGTTAATCG CGAACTCGGT GTCATTGTTA TCAAACCATC AGGCGTGGAT TATGACGAAT	15540
TGACACCTGA AAACATGGTA GTGACTGATC TAGATGGTAA GATCCTAGAA GGGGATTTAA	15600
GACCATCTTC CGACCTCCCA ACTCATGTGC AATTATATAA GACTTGGTCA GAAATTGGA	15660
GTGTGGTTCA CACCCATTCG ACAGAAGCTG TTGGTTGGGC TCAGGCAGGT CGTGATATTC	15720
CTTCTACGG AACAAACCAT GCAGATTATT TCTACGGTTC AATCCCTTGC GCCCGTAGTT	15780
TGACCAAGGA CGAAGTAGAA GTGGCCTATG AAAAAGATAC TGGCCTGGTT ATCGTAGAAG	15840

384					
AGTTTGAACA	TCGCGGACTT	AACCCGGTTG	AAGTACCAGG	AATTGTTGTA	CGCAATCACG 15900
GTCCATTCAC	CTGGGGCAAA	AATCCAGAGA	ATGCTGTTTA	TCACTCTGTC	GTACTAGAGG 15960
AAGTATCAAA	GATGAATCGC	TTTACAGAAC	AAATCAATCC	AAGAGTTGGA	CCTGCTCCCC 16020
AGTACATACT	AGAAAAACAC	TACCAACGTA	AACATGGACC	AAATGCTTAT	TATGGTCAAA 16080
AGTAAGAACG	ATGAAGGAGG	AGAAAAAGAT	AAATTTAGCT	CCTCTTTTTA	CATTGTGATTT 16140
TTATTGAGAG	TAAAGTTGGA	GTTGAAGTAA	TTTAAAAGA	TTTTTTAGAA	ATAGCGCTTG 16200
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AATATGGTAC	TGGATAAGGC	AAGTTGTGAT	TTGCTTCAAT	ATTTGATGGA	TCAAGAAACG 16320
TCCAAAACGA	TTATGGCGAT	TTCGAAAGAT	TTGAAAGAGT	CAAGAAGGAA	AATTTATTAT 16380
CACATTGACA	AAATCAATGC	TGCTCTGGGT	GACGAGGCGC	TTACATCAT	TAGTATTCCA 16440
CGAATTGGTA	TTCACTTAAC	GGAAGAGCAG	AGAGATGCTT	GTTGTAAACT	ATTATCGGAA 16500
GTAGATTCTG	ACGATTATAT	CATGAGTGCG	CATGAACGTA	TGATGATAAT	GTTACTATGG 16560
ATAGGTATTT	CTAAAGAACG	TATTACGATT	GAAAAATTGA	TAGAGTTAAC	AGAGGTATCT 16620
AGGAATACTG	TTCTCAATGA	TTTGAATAGT	ATTCGTTATC	AACTAACTTT	GGAACAATAT 16680
CAGGTGATCT	TGCAAGTGAG	CAAGTCACAG	GGATACAACC	TTCATGCCCA	CCCTCTTAAT 16740
AAAATTCAGT	ATCTTCAATC	GCTTCTATAT	CATATTTTTA	TGGAAGAAAA	TGCCACTTTT 16800
GTATCTATTT	TAGAAGATAA	GATGAAAGAG	AGGTTAGATG	ATGAGTGTTT	GCTTTCTGTT 16860
GAAATGAACC	AATTTTTTAA	GGAACAGGTT	CCTTTAGTTG	AACAAGATTT	AGGGAAGAAA 16920
ATAAACCATC	ATGAAATAAC	TTTTATGTTG	CAGGTTCTAC	CTTATTTGCT	GTTAAGCTGT 16980
CATAATGTTG	AACAGTATCA	AGAAAGACAT	CAGGATATAG	AGAAAGAATT	TTCTTTGATA 17040
AGAAAAAGAA	TAGAGTATCA	GGTGTCTAAG	AAATTAGGAG	AACGGTTGTT	TCAAAAGTTT 17100
GAAATTTCTT	TGTCAGGACT	TGAAGTTTCT	CTTGTTAGCTG	TTCTCCTCCT	CTCCTATCGT 17160
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GAATTTATCT	GGTATTTTGA	ATCACAAATC	CGAATGGAGA	TTGAGAACAA	GGATGATTTG 17280
TTACGAAATT	TGATGATCCA	CTGTAAAGCC	TTGTTATTTA	GAAAGACTTA	CGGTATTTTT 17340
TCTAAAAATC	CTCTAACAAA	ACAAATTCGA	TCCAAGTATG	GAGAATTATT	TTTAGTCACT 17400
AGAAAATCTG	CGGAAATTTT	AGAAGGAGCA	TGGTTTATTC	GGCTAACAGA	CGATGATATT 17460
GCCTATTTGA	CGATTCATAT	TGGAGGATTT	TTAAAATATA	CACCATCATC	TCAAAAAAAT 17520
ATGAAAAAAG	TTTATCTCGT	TTGTGATGAA	GGTGTGCGG	TTTCGAGACT	TTTGCTGAAA 17580
CAATGCAAAC	TTTATTTTCC	AAATGAGCAA	ATTGACACTG	TATTTACAAC	AGAACAATTT 17640

385

AAGAGTGTGG AAGATATTGC ACAAGTTGAT GTAGTGATTA CTAATAATGA TGATTGTGGAT	17700
AGCAGATTTTC CGATTTTAAG GGTAAATCCT ATCCTTGAAG CAGAAGATAT TTTGAAAATG	17760
CTAGACTATC TTAAACACAA TATATTTCGT AATAAGAGCA AAAGTTTCAG TGAAAATCTT	17820
TCTAGTCTTA TTTCGTCTTA TATTGTAGAC AGCAAGTTGG CTAGTAAGTT CCAAGAAGAG	17880
GTTCAAACAC TTATAAATCA AGAAATAGTA GTTCAAGCTT TTTTGGAAAGr TATTTGAAGG	17940
ACAGTCCAAT GATGAACACA AACCTGTGtK TTTCsTGGTC TTTTtTAGTG TTTTGAAGGG	18000
TGGkATACTA ATCTCAAAGA TAACAATTAT ATCCAAAGGA GGCAACATAT GCCAAACGTC	18060
AAAGAAATTA CAAGAGAGTC ATGGATTTTA GCCACTTTCC CAGAGTGGGG AACATGGTTG	18120
AACGAAGAAA TCGAAGAAGA AGTCGTACCT GAAGGCAACT TTGCCATGTG GTGGCTAGGC	18180
AACTGTGGTA CTTGGATTAA GACACCAGCT GGTGCTAACG TTGTCATGGA CCTTTGGTCA	18240
AACCGTGGA AATCAACCAA AAAAGTGAAA GATArTGGTTC GTGGGCACCA AATGGCAAAT	18300
ATGGCAGGTG TTCGTAAGCT GCAACCAAAC TTGCGTGTTC AGCCAATGGT TATCGATCCA	18360
TTTGCTATCA ACGAACTAGA CTATTACTTA GTTTCACACT TCCACAGTGA TCATATCGAC	18420
CCATACACAG CTGCAGCAAT TCTCAATAAT CCTAAGTTAG AGCATGTTAA GTTGG	18475

(2) INFORMATION FOR SEQ ID NO: 39:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

CCAGGATTTG GTACCGTTGC AAGTGGTGTG CCTTTCCTCC TAAAGGAAAA TGGAGGAAAA	60
ATCAATCAAT CAGCACATTC AGATATCAAA GTTGCTAAGG TATTGGTCAA GGATGAAGAT	120
GAAAAAAATC GCTTGCTTGC AGCAGGGAAT GACTTTAACT TTGTAACCAA TGTGGATGAT	180
ATTTTATCAG ACCAGGATAT TACTATCGTA GTGGAATTGA TGGGGCGTAT TGAGCCTGCT	240
AAAACCTTTA TCACTCGTGC CTTGGAAGCT GGAACACG TTGTTACTGC TAACAAGGAC	300
CTTTTAGCTG TCCATGGCGC AGAATTGCTA GAAATCGCTC AAGCTAACAA GGTAGCACTT	360
TACTACGAAG CAGCAGTTGC TGGTGGGATT CCAATTCTTC GTACTTTAGC AAATTCCTTG	420
GCTTCTGATA AAATTACGCG CGTGCTTGGA GTAGTCAACG GAACTTCCAA CTTTCATGGTG	480
ACCAAGATGG TGAAGAAGG CTGCTCTTAC GATGATGCTC TTGCGGAAGC ACAACGTCTA	540

386

GGATTTGCAG AAAGCGATCC GACGAATGAC GTAGATGGGA TTGATGCAGC CTACAAGATG	600
GTTATTTTGA GCCAATTTGC CTTTGGCATG AAGATTGCCT TTGATGATGT AGCCCACAAG	660
GGAATCCGCA ATATCACACC AGAAGACGTA GCTGTAGCTC AAGAGCTTGG TTACGTAGTG	720
AAATTG GTTG GTTCTATTGA GGAACTTCT TCAGGTATTG CTGCAGAAGT GACTCCAACC	780
TTCTTACCTA AAGCGCACCC ACTTGCTAGT GTGAATGGCG TAATGAACGC TGTCTTTGTA	840
GAATCTATCG GTATTGGTGA GTCTATGTAC TACGGACCAG GTGCGGGTCA AAAACCAACT	900
GCAACAAGTG TTGTAGCTGA TATTGTCCGT ATCGTTGCTC GTTTGAATGA TGGTACTATT	960
GGCAAAGACT TCAACGAATA TAGCCGTGAC TTGGTCTTGG CAAATCCTGA AGATGTCAAA	1020
GCAAAC TACT ATTTCTCAAT CTTGGCTCTA GACTCAAAAG GTCAGGTCTT GAAGTTGGCT	1080
GAAATCTTCA ATGCTCAAGA TATTTCC TTT AAGCAAATCC TTCAAGATGG CAAAGAGGGT	1140
GACAAGGCGC GTGTGCTTAT CATCACACAC AAGATTAATA AAGCCCAGCT TGAAAATGTC	1200
TCAGCTGAAT TGAAGAAGGT TTCAGAATTC GACCTCTTGA ATACCTTCAA GGTGCTAGGA	1260
GAATAAGATG AAGATTATTG TACCTGCAAC CAGTGCCAAT ATCGGGCCAG GTTTTGACTC	1320
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GCTGATTGAA CACCAGATTG GCAAATGGAT TCCACATGAC GAGCGTAATC TCTTGCTCAA	1440
AATCGCTTTG CAAATTGTAC CAGACTTGCA ACCAAGACGC TTGAAAATGA CCAGTGATGT	1500
CCCTTTGGCG CGCGGTTTGG GTTCTTCCAG CTCGGTTATC GTTGCTGGGA TTGAACTAGC	1560
CAACCAACTG GGTCAACTCA ACTTATCAGA CCATGAAAAA TTGCAGTTAG CGACCAAGAT	1620
TGAAGGGCAT CCTGACAATG TGGCTCCAGC CATTTATGGT AATCTCGTTA TTGCAAGTTC	1680
TGTTGAAGGG CAAGTCTCTG CTATCGTAGC AGACTTTCCA GAGTGTGATT TTCTAGCTTA	1740
CATTCCAAAC TATGAATTAC GTACTCGCGA CAGCCGTAGT GTCTTGCCTA AAAAATTGTC	1800
TTATAAGGAA GCTGTGTGCTG CAAGTTCTAT CGCCAATGTA GCGGTTGCTG CCTTGTGGC	1860
AGGAGACATG GTGACCGCTG GGCAAGCAAT CGAGGGAGAC CTCTTCCATG AGCGCTATCG	1920
TCAGGACTTG GTAAGAGAAT TTGCGATGAT TAAGCAAGTG ACCAAAGAAA ATGGGGCCTA	1980
TGCAACCTAC CTTTCTGGTG CTGGGCCGAC AGTTATGGTT CTGGCTTCTC ATGACAAGAT	2040
GCCAACAATT AAGGCAGAAT TGGAAAAGCA ACCTTTCAAA GGAAACTGC ATGACTTGAG	2100
AGTTGATACC CAAGGTGTCC GTGTAGAAGC AAAATAAAGA ATAGAAGATA GGATGGGGAA	2160
ACTCTTGACC AGAGGGGTTT ATATCCTTTT TGTGAAAAGA AGTTTATACT CAATGAAAAT	2220
CAAAGAGCAA ACTAGGAAGC TAGCCGCAGG CTGCTCAAAA CAGTGTTTTG AGGTTGCAGA	2280
TAGAAGTGAC GAAGTCAGCT CAAGACACTG TTTTGAGGTT GCAGATAGAA CTGACGAAGT	2340

387

CAGTAACCAT	ACTACGGTAA	GGTGACGCTG	ACGTGGTTTG	AAGAGATTTT	CGAAGAGTAT	2400
TAGTTAAAAA	CGTGATAAAG	GAGAAATAAA	GATGGCAGAA	ATTTATCTAG	CAGGTGGTTG	2460
TTTTTGGGGC	CTAGAGGAAT	ATTTTTCACG	CATTTCTGGA	GTGCTAGAAA	CCAGTGTTGG	2520
CTACGCTAAT	GGTCAAGTCG	AAACGACCAA	TTACCAGTTG	CTCAAGGAAA	CAGACCATGC	2580
AGAAACGGTC	CAAGTGATTT	ACGATGAGAA	GGAAGTGTCA	CTCAGAGAGA	TTTTACTTTA	2640
TTATTTCCGA	GTTATCGATC	CTCTATCTAT	CAATCAACAA	GGGAATGACC	GTGGTCGCCA	2700
ATATCGAACT	GGGATTTATT	ATCAGGATGA	AGCAGATTTG	CCAGCTATCT	ACACAGTGGT	2760
GCAGGAGCAG	GAACGCATGC	TGGGTCGAAA	GATTGCAGTA	GAAGTGGAGC	AATTACGCCA	2820
CTACATTCTG	GCTGAAGACT	ACCACCAAGA	CTATCTCAGG	AAGAATCCTT	CAGGTTACTG	2880
TCATATCGAT	GTGACCGATG	CTGATAAGCC	ATTGATTGAT	GCAGCAAACT	ATGAAAAGCC	2940
TAGTCAAGAG	GTGTTGAAGG	CCAGTCTATC	TGAAGAGTCT	TATCGTGTCA	CACAAGAAGC	3000
TGCTACAGAG	GCTCCATTTA	CCAATGCCTA	TGACCAAACC	TTTGAAGAGG	GGATTTATGT	3060
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TTGGCCAAGT	TTTAGCCGTC	CGATTTCCAA	AGAGTTGATT	CATTATTACA	AGGATCTGAG	3180
CCATGGAATG	GAGCGAATTG	AAGTTCGTTC	TCGTTCAGGC	AGTGCTCACT	TGGGTCATGT	3240
TTTCACAGAT	GGACCGCGGG	AGTTAGGCGG	CCTCCGTTAC	TGTATCAATT	CTGCTTCTTT	3300
ACGCTTTGTG	GCCAAGGATG	AGATGGAAAA	AGCAGGATAT	GGCTATCTAT	TGCCTTACTT	3360
AAACAAATAA	AACAGAGAGT	GGGGCTTCCC	ACTTCTTCA	TTTCTAGAAT	ATGAATAGAA	3420
GGGATTTATG	AAACACCTAT	TATCTTACTT	CAAACCCTAC	ATCAAGGAAT	CAATTTTAGC	3480
CCCCTTGTTC	AAGCTGTTAG	AAGCTGTTTT	TGAGCTCTTG	GTTCCCATGG	TGATTGCTGG	3540
GATTGTTGAC	CAATCTTTAC	CTCAGGGAGA	TCAAGGTCAT	CTCTGGATGC	AGATTGGCCT	3600
GCTCCTTATC	TTTGCAGTAA	TTGGCGTTTT	AGTGGCCTTG	ATAGCTCAAT	TTTACTCAGC	3660
AAAGGCAGCA	GTAGGTTCTG	CTAAGGAATT	GACAAACGAT	CTTTATCGTC	ATATTCTTTC	3720
CTTGCCCAAG	GACAGCAGAG	ACCGTCTGAC	AACTTCTAGT	TTGGTCACTC	GCTTGACTTC	3780
GGATACCTAC	CAGATTCAGA	CTGGTATCAA	TCAATTCCTG	CGTCTCTTTT	TACGAGCGCC	3840
CATTATCGTT	TTTGGTGCCA	TTTTTATGGC	TTATCGAATC	TCAGCTGAGT	TGACTTTCTG	3900
GTTCTTAGTC	TTGGTTGCCA	TTTTGACCAT	TGTCATTGTA	GGGTATCTC	GATTGGTCAA	3960
TCCTTTCTAC	AGTAGTCTCA	GAAAGAAAAC	GGACCAACTG	GTTTCAGGAA	CGCGCCAGCA	4020
ATTGCAAGGG	ATGCGGGTTA	TTCGTGCTTT	TGGTCAAGAA	AAACGAGAGT	TACAGATTTT	4080

388

TCAAACCCTT	AACCAAGTTT	ATGCTAGATT	ACAAGAAAAG	ACAGGTTTCT	GGTCTAGTTT	4140
ATTAACACCT	CTGACCTATC	TGATTGTCAA	TGGAACCTCT	CTCGTTATTA	TCTGGCAAGG	4200
CTATATTTCA	ATTCAAGGAG	GAGTGCTCAG	TCAAGGTGCT	CTCATTGCTC	TTATCAATTA	4260
CCTCTTACAG	ATTTTGGTGG	AATTGGTCAA	GCTAGCCATG	TTGATCAATT	CCCTCAACCA	4320
GTCCTATATC	TCAGTCAAGC	GAATCGAGGA	AGTCTTTGTT	GAGGCTCCAG	AGGATATCCA	4380
TTCAGAGTTA	GAACAAAAGC	AAGCTACCAG	AGATAAGGTT	TTACAAGTCC	AAGAATTGAC	4440
CTTTACCTAT	CCTGATGCGG	CCCAGCCTTC	TCTGAGATAC	ATTTCCCTTG	ATATGACTCA	4500
AGGACAAATT	CTAGGTATCA	TCGGGGGAAC	TGGTCTGGT	AAATCAAGCT	TGGTGCAACT	4560
CTTACTTGGA	CTTTATCCAG	TAGACAAGGG	GAACATTGAC	CTTTATCAAA	ATGGACGTAG	4620
TCCTCTTAAT	TTGGAGCAGT	GGCGGTCTTG	GATTGCCTAT	GTACCTCAA	AGGTCGAACT	4680
CTTTAAAGGA	ACCATTTCGT	CCAACCTGAC	TCTAGGTTTC	AATCAAGAAG	TATCTGACCA	4740
GGAACCTCTG	CAGGCCTTGG	AGATTGCGCA	AGCTAAGGAT	TTTGTCACTG	AAAAGGAAGG	4800
ACTCTTGAT	GCTCTAGTTG	AGGCAGGGGG	GCGAAATTC	TCAGGTGGAC	AAAAACAAAG	4860
ATTGTCTATC	GCCCGAGCAG	TCTTGCGCCA	GGCTCCGTTT	CTCATCCTAG	ATGATGCAAC	4920
CTCGGCACTG	GATACCATTA	CAGAGTCCAA	GCTCTTGAAA	GCTATTAGAG	AAAATTTTCC	4980
AAACACGAGC	TTAATTTTGA	TCTCTCAACG	AACCTCAACT	TTACAGATGG	CGGACCAGAT	5040
TCTCCTCTTG	GAAAAAGGTG	AGTTGCTAGC	TGTTGGCAAG	CACGATGACT	TGATGAAATC	5100
CAGCCAAGTC	TATTGTGAAA	TCAATGCATC	CCAACATGGA	AAGGAGGACT	AGAATGAAAC	5160
GACAAACTGT	AAACCAGACG	CTCAAACGTT	TAGCCGTAGA	TTTAGCAAGC	CATCCTTTCC	5220
TCCTTTTCCT	AGCCTTTCTA	GGAACATTGG	CCCAAGTTGG	CTTATCAATT	TACCTACCTA	5280
TTCTGATTGG	GCAGGTCATT	GACCAAGTCC	TAGTGGCTGG	TTCATCACCA	GTTTTTTGGC	5340
AGATTTTCT	CCAGATGCTC	TTGGTGGTAA	TAGGAAATAC	TCTGGTACAA	TGGGCCAATC	5400
CTCTCCTCTA	TAATCGTCTA	ATCTTCTCTT	ATACCAGAGA	TTTACGGGAG	CGAATCATCC	5460
ATAAGCTCCA	TCGTTTACCG	ATTGCCTTTG	TAGATAGGCA	AGGTAGTGGA	GAGATGGTTA	5520
GTCGTGTAAC	CACGGACATC	GAACAGTTGG	CAGCTGGCTT	GACCATGATT	TTTAACCAAT	5580
TTTTCATTTG	TGTTTTGATG	ATTTTGGTCA	GTATTCTAGC	CATGCTCCAA	ATTCATCTCC	5640
TCATGACTCT	CTTAGTCTTG	CTGTTGACGC	CACTGTCCAT	GGTGATTTC	CGCTTTATTG	5700
CCAAGAAATC	CTATCATCTC	TTCCAGAAGC	AAACAGAGAC	GAGGGGAATT	CAGACTCAGT	5760
TGATTGAAGA	ATCGCTTAGT	CAGCAGACTA	TAATCCAGTC	CTTCAATGCT	CAAACAGAAT	5820
TTATCCAAG	ATTGCGTGAG	GCTCATGACA	ACTACTCAGG	CTATTCTCAG	TCAGCCATCT	5880

389

TTTATTCTTC AACGGTCAAT CCTTCGACTC GCTTTGTAAA TGCACTCATT TATGCCCTTT 5940
 TAGCTGGAGT AGGAGCTTAT CGTATCATGA TGGGTTGAGC CTTGACCGTC GGTCGTTTAG 6000
 TGACTTTTTT GAACTATGTT CAGCAATACA CCAAGCCCTT TAACGATATT TCTTCAGTGC 6060
 TAGCTGAGTT GCAAAGTGCT CTGGCTTGCG TAGAGCGTAT CTATGGAGTC TTAGATAGCC 6120
 CTGAAGTGGC TGAAACAGGT AAGGAAGTCT TGACGACCAG TGACCAAGTT AAGGGAGCTA 6180
 TTTCTTTTAA ACATGTCTCT TTTGGCTACC ATCCTGAAAA AATTTTGATT AAGGACTTGT 6240
 CTATCGATAT TCCAGCTGGT AGTAAGGTAG CCATCGTTGG TCCGACAGGT GCTGGAAAAAT 6300
 CAACTCTTAT CAATCTCCTT ATGCGTTTTT ATCCCATTAG CTCGGGAGAT ATCTTGCTGG 6360
 ATGGGCAATC CATTTATGAT TATACACGAG TATCATGAG ACAGCAGTTT GGTATGGTGC 6420
 TTCAAGAAAC CTGGCTCACA CAAGGGACCA TTCATGATAA TATTGCCTTT GGCAATCTG 6480
 AAGCCAGTCG AGAGCAAGTA ATTGCTGCTG CCAAAGCAGC TAATGCAGAC TTTTTCATCC 6540
 AACAGTTGCC ACAGGGATAC GATACCAAGT TGGAAAATGC TGGAGAATCT CTCTCTGTCG 6600
 GCCAAGCTCA GCTCTTGACC ATAGCCCGAG TCTTCTGGC TATTCCAAAG ATTCTTATCT 6660
 TAGACGAGGC AACTTCTTCC ATTGATACAC GGACAGAAGT GCTGGTACAG GATGCCTTTG 6720
 CAAAACATCAT GAAGGGCCGC ACAAGTTTCA TCATTGCTCA CCGTTTGTCA ACCATTCAGG 6780
 ATGCGGATTT AATTCTTGTC TTAGTAGATG GTGATATTGT TGAATATGGT AACCATCAAG 6840
 AACTCATGGA TAGAAAGGGT AAGTATTACC AAATGCAAAA AGCTGCGGCT TTAGTTCTG 6900
 AATAAGCCAT TCTCTTTTGA AAGTTTATGG ACGAAAAAAG TTGCCTTCGA GTGACTTTTT 6960
 TGTTACAATA GCTAGAAAAA TTGTTCACTG TAATACTCAA TGAAAATCAA AGAGCAAAC 7020
 AGGAAGCTAG CCGTAGGTTG CTCAAAGCAC AGCTTTGAGG TTGTAGATAA GACTGACGAA 7080
 GTCAGTTCAA AACACTGTTT TGAGGTTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC 7140
 TGTTTTGAGG TTGCAGATAG AACTGACGAA GTCAGCTCAA AACAGG 7186

(2) INFORMATION FOR SEQ ID NO: 40:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14273 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

CTGAAAATTC TAAAAAATTT ATAAGTAAGG AATTAATTAG TTATTTTGTG GATAAAGTTT 60

390

ATGATGAAAT	ATTTGTTGAA	GAGGTAGTTC	CGCACGTTTT	TCTGCCATAT	GAATCTGACT	120
TACTTCTTAT	TTTACCAGCT	ACGGCAAATG	TGATTGGCAA	AATTGCTAAT	GGTATTGCTG	180
ATGATTTAGT	TACAGCAACT	GTTTTAACT	TTAATAAAAA	AATAATTTTT	TGTCCCAATA	240
TGAACCTCTAC	TATGTGGGAC	AATCACATAG	TTCAAAGAAA	TGTATCAATT	CTAAAGGAGT	300
TGGGACATAT	ATTTTTATTT	GAGTCTAAAA	AAACATATGA	GGTAGGATTG	CGTAAAGCAA	360
TAGATTCAAC	ATGTTCAATG	TTACAACCAC	AGTCGTTAGT	AAAAGAAGTT	ATCAAATTAG	420
AAAATATTGT	CCTTGAAGAG	GGACATTAAA	AACTACTGAG	AATATTAATG	AGGGGAAAAA	480
ATGGAAAATT	CATCAATCGA	TGTAGATATG	CTGTTGGAAG	AATTGACACA	AGAAGCAATG	540
GTCGTTGTTG	CTGTTGATAA	GGACTGTTAA	TTTAAACTTA	TGGCAATATA	TGAAAGGTTA	600
CTGGATGTTT	TAAATTATGC	AGGCAGTAGC	CTTTTATTAT	ATACAAATGG	ATAAAGTAAG	660
GATAATACAA	TGATTAATAA	AAAAATACAA	CAAGTTGTTT	TGGAATCATT	ACAGAATTTT	720
TTGAATGGGA	ACTTCATTTT	GCCTTGTTGA	GTCTATGATT	TTGGCTTGCT	GGAAACTGTA	780
CTTGATGAAT	TTAAAAATCA	AATTCCTGTA	ACATTCAATT	ACCAACTTTT	TTATGCCGTT	840
AAAGCAAATT	CAAATGAGAA	GATACTTGAA	TTCTTAGTAG	ATAAAATTGA	TGGAGTTGAT	900
GTGGCGTCAT	TATCTGAATT	AGATGTGGCT	AAAAAATTTT	TCCCACCAAC	TCAAATTTCT	960
GTTAATGGTC	CCGCATTTTC	TTATGAAACT	TTATATAATC	TGATTAAAAA	ACAATATAAA	1020
GTTGATATTA	ACTTTTTTGA	ACATCTTCAA	CAATTTTCCC	CAAAAGAATC	TGTTGGAATA	1080
AGAGTAACGG	AGCCAGATGA	ACTTAATAAT	CGTATGAGTC	GATTTGGAAT	AAATATTTGC	1140
AGTGATAAAT	GGACTAGTAA	TTTACAAAAT	CCTTTAATTA	CACGACTGCA	TTTTCATTTT	1200
GGAGAAAAAG	ATGATAAATT	TATTGTTAAG	TTAGATAAAA	TATTATTTAA	GTTACAAGAA	1260
ATTAATAAAC	TTAGAGAGGT	TAGAGAAATA	AATCTTGGAG	GCGGTTTTAT	GAAATTATTT	1320
ATGGAAAATC	GTTTGAAAGA	ATTTTTTCTA	TCACTTATGG	AAATCTATAA	AAAGTACGAT	1380
ATTGATAGTA	CTGTGACTAC	AATAATAGAA	CCAGGTAGTG	CAATTACTTC	ATTTTCTGCC	1440
TATATGATTA	CTAGCCCAGT	TAATGTTAGT	GAGGTGAATG	AGCAGCAGGT	TATCACGTTA	1500
GACACATCAA	TATACACCAA	TACATTATGG	TTTGTCCGCG	ATATTATTAC	AACGTTAAAT	1560
TCAAGTAGTA	AAGAGCGTTA	TAGTACTATT	CTCTATGGTA	ATACCTGTTA	TGAACATGAC	1620
AAGTATAAAA	TGAAAGTTTC	GCTTCCAAGG	TTAACTCAAA	ATAGCAGTAT	AGTGTTTTTT	1680
CCTGTAGGAG	CTTATATAAA	AAGCAATCAT	TCAAATTTAC	ATCGTAATGA	TTTTATGCGG	1740
GAGGTATATT	TGTGGACAAA	AACTTGACA	TATTAGATAA	AGTTAAGGAA	TATTTAGGAA	1800
ATAAACTAC	TCAAATCTCG	GATAATCAAT	ATAAAGAATT	TTTGAAACTT	AATGATATAA	1860

391

GGCGAGCGTT TGGTATTTCA GAAAAAGTAT TAAACAATTC TTTTAATTTT ACGAGTAAAG	1920
AATTTAATGA TTTAATTAAT AACGAAAATT ATTTATTCGA ATATGCATGT AGAATTAGAG	1980
AGGAATGGAG AAAAAAATGC TTTAATCATT CTTATCGTTT TCTATGCTCA CCTATAATTA	2040
CAGATGATTT TCTTAACACG AAGACATTGA GAAGTAGCCA AATTGAATAT AAATATGAGC	2100
GATATTTATC GAAAAGTTCG ATAGGCGATA GAGCGGTGA TGGCTTTGTT TCCTTCAATA	2160
CTTTAACAGC TAATGGTATG TCTGCTATTA AACTATGTCT TGAGATATTA AACTCTATTT	2220
TCTTCAAGAA GAAGATTGAT TTATTATATT CAACCGGATA TTATGAAACA AGATTTTAT	2280
TAAATAATCT TGCTAAATCA GGTATTAGTT GCTATGAGGT AAGTAATTGT GAATTGGATA	2340
AAGATAAATT TTATAATGTA TTCATGATGG AACCCAAATCG AGCCGATTTA ACATTACAAA	2400
AAACTGATTT CAAGATAGTA GAATATTTTG TTAAGTATAA AAATAATTCA ATAAAAGTCG	2460
TTATTTTAGA TATTTCATAT CAAGGTCTA ATTTTAAATT AGTAGAATTT TTAGAGAAAT	2520
TTAAATTTGC GAATGTAATT ATTTTGTGG TACGATCTTT GATAAAATTA GATCAATGG	2580
GATTAGAATT GACAAATGGG GGAATAATAG AAGTGTTTAT TCCTAATCAT TTGAGAAAGT	2640
TGAAAAATTT TATTGAAGAG GAATTCAATA AATTTAGAAA TTCTCACGGA GCTAATCTAA	2700
GCCTCTATGA ATACTGTTTG CTTGATAATT CTTTAACTTT AAAAAATGAT TGGAATCTAT	2760
CTGATTTAGT TATGAAATTT ACGAGTAATT TTTATGCTGA TATAAAAGAC TTGTTTCATGG	2820
AAAATTCTGA TATTGAAATC ATCCATGAAG AGGGAGTACC TTTTGTATTT TTAGATTTAA	2880
TAGGTGAAGG TAAAAAGAA TATGAAATGT TTTTCAATG GTTAAACTTC TTTTACAAAC	2940
AGCTTGAAT CACATTGTAT GCTAGAAATA GTTTTGGGTT TCGGAATCTA ACAGTAGAGT	3000
ATTTTGAAT TATTGGGACA GAAAGATATA TATTTAAGAT TTGTCCAGGT GTTTATAAAG	3060
GGTTAAGTTA TTATTGATG AAATTTTAT TAAAATCTTT TTCAAATGAA TATTTAAAAA	3120
CTACTGATGA GGTTAATAGA TGAAAAATTT GATAAAGTTG CTAATAATTA GATTGATTGT	3180
TAACCTAGCA GACAGTGTAT TTTATATAGT AGCATGTGG CACGTTAGCA ATAATTATTC	3240
TTTCGAGCATG TTCTTAGGAA TATTTATTGC AGTAAATTAT CTACCGGATT TGTTACTAAT	3300
CTTTTGTGGA CCAGTTATTG ACAGAGTAAA TCCGCAAAAA ATTCCTATAA TATCAATTTT	3360
GGTTCAATTA GCAGTGGCTG TAATATTTTT ATTATTATTA AACCAAATAT CATTTTGGGT	3420
GATAATGAGT CTAGTGTTTA TTTCAGTAAT GGCTAGCTCC ATAAGTTACG TGATAGAAGA	3480
TGTGTTGATT CCTCAAGTGG TAGAATATGA TAAGATTGTA TTTGCAAATT CTCTTTTTAG	3540
TATTCGTAT AAAGTATTAG ATTCTATTTT TAATTCATTC GCATCATTTT TACAGGTGGC	3600

392

AGTAGGATTT	ATTTTATTGG	TTAAGATAGA	TATAGGCATA	TTTTTACTTG	CTCTATTTAT	3660
ATTGTTGTTG	TTAAAATTTA	GAAGTAGCAA	TGCGAATATA	GAAAACCTCT	CTTTCAAATA	3720
TTACAAGAGA	GAAGTGTTGC	AAGGTACAAA	GTTTATTTTA	AATAATAAAT	TATTATTTAA	3780
AACCAGTATT	TCTTTAACGC	TTATAAACTT	TTTTTATTCA	TTTCAGACAG	TAGTTGTACC	3840
GATTTTTCCT	ATTCGATATT	TTGATGGTCC	GATTTTTCAT	GGTATTTTTC	TAACATTTGC	3900
TGGTTTGGGT	GGTATATTGG	GAAATATGCT	AGCGCCAATC	GTAATAAAAT	ATTTAAAATC	3960
GAATCAAATT	GTTGGTGTAT	TTCTTTTTTT	GAACGGCTCA	AGTTGGTTAG	TAGCAATTGT	4020
TATAAAAGAC	TATACTTTAT	CACTTATTTT	ATTTTTCGTT	TGTTTATATG	CTAAAGGAGT	4080
CTTCAATATT	ATTTTAAATT	CGTTGTACCA	ACAAATACCT	CCACATCAAC	TTCTTGGTAG	4140
GGTAAATACT	ACCATTGATT	CTATTATTTT	TTTTGGAATG	CCAATTGGTA	GTTTAGTTGC	4200
AGGAACGCTT	ATTGATTTGA	ATATTGAATT	AGTGTTAATT	GCTATTAGCA	TACCTTATTT	4260
TTTGTTTTCT	TATATTTTTT	ATACGGATAA	TGGATTGAAA	GAATTAGTA	TATATTAGAA	4320
ATGTTTATGT	TCATTCAAAA	GCATAATGAC	TATAACTGAA	AAAGAAAAGT	GATATCTTTA	4380
AGGTGTCTCT	TCTTGGTGGT	GAGATTCGTG	AGACAACCCA	AGCTTTTGTC	GGAAAGATTA	4440
CCAATGCTTT	GATGGATAGG	ATGTACTTTA	GCAAGATGTT	TTTAGTGGTA	ACGGTATCGT	4500
GGATGGACGT	GTAATAACCT	CTTCTTTCGA	GGAGTATTTT	ACTAAAAAAC	TAGCCTTGGA	4560
GCGTCCCCA	GAAACGGACT	TACTCATTTA	CTCTTCAAAG	ATTTGGGGAG	AAGATTTTGC	4620
TTTCTCTGTT	CCTTGAAAAA	AGTCACAGCA	GTCATCACAG	ACGATAGTAC	TGAACAAAAC	4680
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AGTTGATTAG	TATTGACCTA	GGTGGTACAA	ATATTAAGAT	TACTGTTCTT	TCAAATGACG	4800
GTGAGATTGA	AACTTTGTGG	AGTATTACAA	CAGATACAAG	TGAGAAAGGT	TCTCAAATTA	4860
TATCGGACAT	CATCAGTTCT	ATTAAAAATA	AATTGACCGA	ACGGAATATT	CCTGATAGCG	4920
ACCTTCTTGG	AATCGGTATG	GGAAGTTGCT	CATCATACTT	TCCTTGTAAG	TCATAGGGGC	4980
TATAAACTCT	CCGTCTACTT	GTCTGCAAC	AATTGAAGTC	TGCTCAAAAC	GCCGTCCGCT	5040
AATCTTTTCA	TAGACTTTCT	CCCTTTTAGG	AGCCTAGCTT	TCTAGTTTGT	TCTTTGATTT	5100
TTATTGAGTA	TACCACTATT	TTACTCCCTC	TGGCAAGGGA	CTTTGTCTAT	GTGGAGGGAT	5160
TGGGCTCCTA	TGTGGTGGAG	CTTTTCTGTT	CTTTCTGAAA	TATGGTATAA	TAGCACTAAT	5220
CAATTTCTAG	GAAAATAGAT	ACAGAAAGGG	GCTGAAAGAT	GTCTCATATT	ATTGAATTGC	5280
CAGAGATGCT	GGCAAACCAA	ATCGCGGCTG	GAGAGGTCAT	TGAACGTCCT	GCCAGTGTGG	5340
TCAAAGAGTT	GGTAGAAAAT	GCCATTGACG	CGGGCTCTAG	TCAGATTATC	ATTGAGATTG	5400

393

AGGAAGCTGG TCTCAAGAAG GTTCAAATCA CGGATAACGG TCATGGAATT GCCCACGATG	5460
AGGTGGAGTT GGCCTGCGT CGCCATGCGA CCAGTAAGAT AAAAAATCAA GCAGATCTCT	5520
TTCGGATTCG GACGCTTGGT TTTCGTGGTG AAGCCTTGCC TTCTATTGCG TCTGTTAGTG	5580
TCTTGACTCT GTTAACGGCG GTGGATGGTG CTAGTCATGG AACCAAGTTA GTCGCGCGTG	5640
GGGGTGAAGT TGAGGAAGTC ATCCCAGCGA CTAGTCCTGT GGGAACCAAG GTTGTGTGG	5700
AGGATCTCTT TTTCAACACG CCTGCCCCGTC TCAAGTATAT GAAGAGCCAG CAAGCGGAGT	5760
TGTCTCATAT CATTGATATT GTCAACCGTC TGGGCTTGGC CCATCCTGAG ATTTCTTTTA	5820
GCTTGATTAG TGATGGCAAG GAAATGACGC GGACAGCAGG GACTGGTCAA TTGCGCCAAG	5880
CAATCGCAGG GATTTACGGT TTGGTCAGTG CCAAGAAGAT GATTGAAATT GAGAACTCTG	5940
ACCTAGATTT CGAAATTTCA GGTTTTGTGT CCTTGCCTGA GTTGACTCGG GCTAACCGCA	6000
ATTATATCAG CCTCTTCATC AATGGCCGTT ATATTAAGAA CTTCTGCTC AATCGTGCTA	6060
TTTTGGATGG TTTTGGAAGC AAGCTTATGG TTGGACGTTT TCCACTGGCT GTCATTCA	6120
TCCATATCGA CCCTTATCTA GCGGATGTCA ATGTGCATCC AACTAAGCAA GAGGTGCGGA	6180
TTTCCAAGGA AAAAGAACTG ATGACTCTGG TTTCAGAAGC TATTGCAAAT AGTCTCAAGG	6240
AACAAACCTT GATTCCAGAT GCCTTGGAAT ATCTTGCCAA ATCGACCGTG CGCAATCGTG	6300
AGAAGGTGGA GCAAACTATT CTCCCACTCA AAGAAAATAC GCTCTACTAT GAGAAACTG	6360
AGCCGTCAAAG ACCTAGTCAA ACTGAAGTAG CTGATTATCA GGTAGAATTG ACTGATGAAG	6420
GGCAGGATTT GACCCTGTTT GCCAAGGAAA CCTTGACCG ATTGACCAAG CCAGCAAAAC	6480
TGCATTTTGC AGAGAGAAAG CCTGCTAACT ACGACCAGCT AGACCATCCA GAGTTAGATC	6540
TTGCTAGCAT CGATAAGGCT TATGACAAAC TGGAGCGAGA AGAAGCATCC AGCTTCCCAG	6600
AGTTGGAGTT TTTCGGACAA ATGCACGGGA CTTATCTCTT TGCCCAAGGG CGAGATGGAC	6660
TTTACATCAT AGATCAGCAC GCTGCTCAGG AACGGGTCAA GTACGAGGAG TACCGTGAAA	6720
GCATTGGCAA TGTTGACCAA AGCCAGCAGC AACTCCTAGT GCCCTATATC TTTGAATTTC	6780
CTGCGGATGA TGCCCTGCGT CTCAAGGAAA GAATGCCTCT CTTAGAGGAA GTGGGCGTCT	6840
TTCTAGCAGA GTACGGAGAA AATCAATTTA TTCTACGTGA ACATCCTATT TGGATGGCAG	6900
AAGAAGAGAT TGAATCAGGC ATCTATGAGA TGTGCGACAT GCTCCTTTTG ACCAAGGAAG	6960
TTTCTATCAA GAAATACCGA GCAGAGCTGG CTATCATGAT GTCTTGCAAG CGATCTATCA	7020
AGGCCAATCA TCGTATTGAT GATCATTCAG CTAGACAACT CCTCTATCAG CTTTCTCAAT	7080
GTGACAATCC CTATAACTGT CCTCACGGAC GTCCTGTTTT GGTGCATTTT ACCAAGTCGG	7140

394

ATATGGAAAA	GATGTTCCGA	CGTATTCAGG	AAAATCACAC	CAGTCTCCGT	GAGTTGGGGA	7200
AATATTAAAA	GTATAAAAAA	GTCTGGGAAA	AATTTTCAAA	ATCAAAAAAA	CGCATAAAAAT	7260
CAGGTGTTCA	AAAACCTTGA	TTTTATGCGT	TTTATCATGG	AAATAGTTAC	TTCATTTTTTT	7320
CCTAATTCTT	TTCGAAACTC	TTTTTAAACG	ACGTCAGTTT	TATCAGTAAT	CTCAAAACAG	7380
TGTTTTGAGC	TAATTTTGCC	AGTTTTGTCT	GTAACATCGA	AGTTGTGTTT	TACCACTCTG	7440
CGACTGGTTT	CCTAGTTTGC	TCTATGATTT	TCACAGAGCA	TTAAATTGCG	ATTTTGCCAA	7500
GTTTCTTTAT	TCGTCTAAAA	GTAGAGTCTG	TTCTATGCGT	CTAATGTACG	AATCAGGTTG	7560
ACCATTTCAA	TAGCTCCTTG	TGCACACTCA	GAACCCTTAT	TTCCCTGCTTT	AGTACCAGCT	7620
CGTTCTATGG	CTTGTTCAAT	TGTATCTGTC	GTTAGCACAC	CAAACATAAC	AGGAATTTTCG	7680
CTATTTAAAC	TGATTTGGGC	GATTCCCTTA	GATACCTCGC	TACATACATA	ATCATAATGA	7740
CTTGATTCC	CTCTAATGAC	AGCTCCCAAG	CAGATAATTG	CATCATATTT	TTTACTTTTTT	7800
GCCATTTTTG	ATGCAATCAG	TGGTATTTCA	AAAGTCCTG	GAACCCAGGC	TACCTCTATA	7860
TCTTTCTCGT	TTACATTCTC	TCTTTTGAGA	TTATCTAGTG	CTCCAGATAA	TAATTTTGAA	7920
GTTATAAATT	CATTAAATCT	CGCTACAACA	ATACCTATTT	TAATATTGTT	TGCTACTAAA	7980
TTACCTTCAT	AAGTGTTTCC	TTATTTTCC	TCCATATTTA	AAATGTGACC	CATTCGATTT	8040
TTCTTTGTTT	CTAAATAAAA	ACTATCGTAA	GGATTTGGCTT	CTATTTTCGAT	TGATATTCTA	8100
CTGGAATGG	TAATTCCATA	TTTTTCTAAC	TGTTCAACCT	TGTCAGGATT	ATTTGTCAGT	8160
AAATGAAGTG	ACTGAAGTCC	CAGATCTTTA	AGCATTTTTG	CTCCAATATG	ATATTCTCTT	8220
AAATCACCTT	CAAAGCCTAA	TGCAAGATTG	GCATCAAGCG	TATCCATGCC	TTGATCTTGT	8280
AAATGATAGG	CTTTTAATTT	ATTGATAAGT	CCAATTCCTC	GTCCCTCCTG	TCGCAAGTAA	8340
AGTAAGACAC	CCGAACCATT	CTCAACAATC	ATTTTCATAG	CCTTATCGAA	TTGCTGTCCA	8400
CAATCGCAAC	GTAAGAGGCC	TAAAACATCT	CCTGTAAAC	ATTCGGAGTG	GACCCGACAT	8460
AATACATTGG	CTTCATCCTC	TATATTTCCC	ATAATAAGAG	CAAGATGATG	TTCCCCATTT	8520
AGTTTATCTA	TATAGCTAAT	TGCTTTGAAA	TTACCGTATC	TAGTAGGCAT	ATTGACAGTT	8580
GAAACTCGTT	CTACCAGCTG	ATCATATACT	TTTCTATATT	CTTGTAATTC	TTTGATGGTA	8640
ATTAGTGGA	TGTTGTGTTT	TTTCGAGAAC	TGAATTAAAT	CATCTGTTCT	CATCATTTTG	8700
CCATCATGAT	TCATTATTTT	ACAACATAGG	CCACACTCTT	TTAGTCCAGC	TAATTTTAAT	8760
AAATCAACAG	TTGCTTCTGT	GTGTCCATTT	CTTTCTAGGA	CACCACCTTT	TTTTGCAATT	8820
AAAGGAAACA	TGTGTCCTGG	CCTGCGAAAA	TCAGAGGGTG	TTATATCTTC	AGCTACACAC	8880
ATACGTGCGG	TCAGTCTCT	TTCCCTCGGCA	GAAATACCTG	TGGTCGTTTC	TTTATAATCA	8940

395

ATTGAACTG TAAAAGCACT CTTATGATTA TCTGTATTGT TTTCAACCAT AGGTGAAAGC	9000
ATTAATTGAT TAGCTAAACT TTCGCTCATA GGCATACAAA TTAATCCTTT GGCATAAGTA	9060
GCCATAAAAT TAACATTTTC TGTGTAGCT GCTTGTGCAG AACAAATTAA GTCTCCTTCA	9120
TTTTCTCTAT CCTTGTCTGC TATAACAAGA ACAAGTCGTC CCTTCTGCAA TGCTTCTAAT	9180
GCTTCTTGTA TTTTTCGATA TTCCATTGAC TGATTATCCT TTCTGCTAAA ATCCATTTTG	9240
ATATAATAGT TCCTTAGATA TTTCTGATTT TGGAGAGTTA TCCATCAGTT TTTGCACATA	9300
TTTACCTAAG ATATCATTTT CAAGATTTAC TGTAATCCCG ACTTGTTTAC TCTTAAGAAT	9360
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GACAGTCAGA CTAATGCCGT CAATTGTAAT AGATCCTTTT TCAACTATTA AATCTAAAAT	9480
TTCTTTTGT GTGTTGATTT GATACCATAC AGCATTATCA TCTTTTTTTA TTGACGAGAT	9540
TTTTCCTGTA CCATCAATGT GTCCTGTAAC GACGTGACCC CCAAGTCGAC CGTTGACAGA	9600
TAAGGCTCTT TCTAGATTCA CTCACTTCC ATGTTTTAAT AGAGTAAGAG CTGTTGACT	9660
CCATGTTTCA TTCATTACAT CAACTGTAAA GGATTGATGA TTGAAATGAG TAACTGTAAG	9720
ACAGATACCA TTTACTGCTA TACTATCGCC TAAATGGATA TCCGTTAATA TTTTGTAGGC	9780
TTTAATTGAT AGTTTACAAT TACGAGAGTC TTTCTGTATT CTTTCAACTT TTCCGATTTT	9840
TTCAATTATT CCTGTGAACA TGGATAAATC ACTTCACTTT CTATGAGATA GTCATTTCTT	9900
ATTTGAGAAA ATGCATAAGG TTTCAATCTA ATAGCGTCAT TTGGCAAAGA AATACCTTCA	9960
CCTCCGACAG GAAACTTGGC ACTACCTCCA AAAACTTTTG GTGCAATATA TATTTTCAGC	10020
TCATCAACAA TTTGTTGTTC CAAAGCACTC CAATTCATTA GACTGCCCCC TTCTAGAACT	10080
AGGCTATCAA TCTGCATGTT TCCTAGATGT TGCATTAAAC TCGATAAGTC TATATGATTG	10140
CCTTTTTTCT TTATGGAAAG TATTTACAGC CCATGATTTT GATATAGCTT CATTTTATTT	10200
TTGTCTTCAG AGGAAGTGGC AATGTAAGTT TTAATATCAT TTGCTGTTTT TACGATTTTA	10260
GAGGTAAGAG GAGTTCGTAA ATGTGTATCG CATATGATAC GGATAGGATT TTTCCCTTCC	10320
TCCAATCTAC ATGTCAGCAA AGGATCGTCT TGAATAACAG TATTGACTCC CACCATAATT	10380
GCACTAACAT GGTGTCGTAA CTGATGCACA TGCTTTCTTG CTCTTCTTC AGTAATCCAT	10440
TTGGATTGAT TTGTTTGTAGT GGCTATTTTT CCATCCATTG ACATTGCATA TTTCATAAAA	10500
ACATAGGGTA CATGCTGGGT AATATACTTT CTAACCTTTT TTATTAAGTT AAGACTCA	10560
TTTTCTAAAA TTCCAACAGT AACTTGAAGA TTATTTTCTT CAAGTATCTT TACTCCTTTT	10620
CCAGATACAA TAGGATTACA GTCTAGGCTT CCAATGACTA CTCTTGTAAT ACCACTATCG	10680

396

ATTATAGCAT CTATACAGGG AGGTGTTTTTC CCGAAGTGAC AACAGGGTTC AAGTGTTACA	10740
TAAAGCGTCG CTCCGACAGG GGATTCTCTA CAGTTTTTAA GAGCATTTCCT CTCAGCATGT	10800
GGGCCACCAA AAAACTCATG ATAACCTTGT CCGATAATGT GATTATCTTT TACAATAACT	10860
GCGCCGACCA TAGGATTGGG ATTGACGTAA CCAGCCCCTT TTTGTGCCAG TTTTATTGCT	10920
AATTTTCATAT ATTTTGAATC GCTCATCTCG CTACCTCCAA AAAAATATAC CTTGAATAGG	10980
GGACTACTCA AGGCATACAA AAGAAAACCT ATGCGATTAA CAAAAATGCT CTGAAATGAC	11040
AAGTAATCAT TTCAGAGCAC GCAAAAAGCA CAAATATACT TTTATCTTCT TTCATCCAGA	11100
CTATACTGTC GGCTTTGGAA TTTCACCAAA TCATGCCTTT CGGCTCGTGG GCTATACCAC	11160
CGGTAGGGAA TTTCACCTG CCCTGAAGAT AGTTATTCAA TTACAGATGA TTATAGTACT	11220
TAATTTTGAA TATGTCAACA GATAAATACC GATTGTTTTT GATATACTGT ATTTGTGATA	11280
ATCGATTCTC GCTCCTCGGA TAAAGAAAAT ATGATATACT AGATAAACGA AATAAGAGAG	11340
AAGGAATACT ATGTACGCAT ATTTAAAAGG AATCATTACC AAAATTACTG CCAAATACAT	11400
TGTTCTTGAA ACCAATGGTA TTGGTTATAT CCTGCATGTG GCCAATCCTT ATGCCTATTC	11460
AGGTACAGGT AATCAGGAGG CTCAGATTTA TGTGCATCAG GTTGTGCGTG AGGACGCCCA	11520
TTTGCTTTAT GGATTTGCT CAGAGGATGA GAAAAAGCTC TTTCTTAGTC TGATTTGCGT	11580
CTCTGGGATT GGTCTGTAT CAGCTCTTGC TATTATCGCT GCTGATGACA ATGCTGGCTT	11640
GGTTCAGCC ATTGAAACCA AGAACATCAC CTACTTGACC AAGTTCCTA AAATTGGCAA	11700
GAAAACAGCC CAGCAGATGG TGCTGGACTT GGAAGGCAAG GTAGTAGTTG CAGGAGATGA	11760
CCTTCCTGCC AAGGTCGAG TGCAAGCAAG TGCTGAAAAC CAAGAATTGG AAGAAGCTAT	11820
GGAAGCCATG TTGGCTCTGG GCTACAAGGC AACAGAGCTC AAGAAAATCA AGAAATTCTT	11880
TGAAGGAACG ACAGATACAG CTGAGAACTA TATCAAGTCG GCCCTTAAAA TGTGTTGTC	11940
ATAGGAGCAG AGAATGACAA AACGTTGTTC GTGGGTCAAG ATGACCAACC CGCTCTACAT	12000
CGCCTATCAT GATGAGGAGT GGGGCCAGCC CCTCCATGAT GACCAAGTAT TGTTTGAGTT	12060
GTTGTGTATG GAAACCTATC AGGCAGGCCT GTCTTGGGAA ACGGTACTCA ACAAACGCCA	12120
AGCTTTCCGA GAAGTCTTTC ATAGCTATCA AATTCACTCA GTCGCAGAGA TGACTGACAC	12180
TGAATTGGAA GCCATGCTGG AGAATCCAGC TATCATTCGA AATAGAGCCA AGCTTTTTC	12240
TACACGCGCT AACGCCAAG CCTTTCTACA GTTACAGGCA GAGTACGGCT CTTTGTGATG	12300
CTATCTTTGG TCTTTTGTG AGGGGAAAAC TGTCGTTAAC GATGTTCTG ATTATCGCCA	12360
AGCGCCAGCT AAAACACCTT TATCTGAGAA ATTAGCCAAA GATCTCAAAA AACGAGGCTT	12420
CAAGTTCACA GCGCCAGTC CCGTATTGTC TTTTCTACAG GCTGCAGGGC TAGTTGATGA	12480

397

CCACGAGAAT GATTGTGAGT GGAAAGGTCT TAAATGATGT CTAACAAAAA TAAGGAAATT	12540
CTGATTTTTG CGATTCTCTA TACAGTCCTC TTTATGTTTG ATGGCGTTAA ATTGCTGGCT	12600
TCTTTAATGC CATCTGCCAT TGCAAATTAT CTTGTTTATG TAGTTTTAGC TCTATATGGC	12660
TCCTTCTTGT TCAAGGATAG ATTGATCCAA CAATGGAAGG AGATTAGAAA GACTAAAAGA	12720
AAATCTTCTT TTGGAGTCTT AACAGGATGG CTCTTTCTCA TTCTGATGAC TGTGTCTTTT	12780
GAATTTGTAT CAGAGATGTT GAAGCAGTTT GTGGGACTAG ATGGACAAGG TCTAAATCAG	12840
TCTAATATTC AAAGTACCTT TCAAGAACAA CCACTACTGA TAGCTGTTTT TGCTTGTGTC	12900
ATTGGACCTC TGGTAGAAGA ATTATTTTTT CGTCAGGTCT TATTGCATTA CTTGCAGGAA	12960
CGGTGTTCAG GTTTACTAAG CATTATTCTG GTAGGACTTG TTTTGTCTCT GACTCATATG	13020
CACAGTTTGG CTCTATCAGA GTGGATTGGT GCAGTTGGTT ACTTAGGTGG AGGCCCTGCC	13080
TTTTCTATTA TTTATGTGAA AGAAAAAGAG AATATCTACT ATCCCCTACT TGTTCACATG	13140
TTAAGCAACA GCCTCTCCTT AATCATTTTA GCTATCAGTA TAGTAAAATG AAATGAGAAC	13200
AGGACAAATC GATTCTAAC AATGTTTTAG AAGTAGAGGT GTACTATTCT AGTTTCAATA	13260
TACTGTAATA TGTGATGAAA ATGCCAGTAA TGATACCGAG AAAAAAGCTG AGAAACTTTT	13320
CCCAGCTTTA TTTGTATAG TCAAAGAGAA TGACTTGTTT CTGTGCATCT ACATGAGCAT	13380
GGACCCCAAA GGGTACAATT GCTCTTGAG TTGCGTGGCC GACATTCAGA TTATAGACAA	13440
TCGGGATATT GCTGTCAATG ATATCCAATA GTGCCTCTTT ATAGTCGTCA TGGAAAGTTT	13500
CATCCATAGG TTTTCCGACC AAGAGTCCAT TGATGACCGC GAATATGCCA GTGTCCTTTA	13560
AAGTTAGCAA CATCTTTTTG AAGTCTTCTG GCTTAGGCTT TTCTTCGCTT GTTTCGAGCA	13620
AGAGGATTTT CCCTTCCCAG TCTGACAAGT CAGGGAAAAG TTTGTATTTT TGGCAGAGTT	13680
CCGTGCTATC TGCGTATCGA GAGTTGTCAA AGATATCGTA GAGGGATTCT AGGCAACCAC	13740
CGAGGATTTT CCCCTCGAAC TGGGCACTTC CTTGCAACAA GTCAAAACCT GTATTTGTAT	13800
GACTGACACG AGGTGTTCCC AGGGCCGTGG GACTAAAATC AGTTCGTTCC TCATACCAAA	13860
CGTCACTAGG GCGGATTTCT GAAATTCTTC CCGTCTCAAT CAATTCTTTA AAGTAGTGAA	13920
GGCTATAGGC TAGCATTTCT TTGTCTAATT CACAAATGTC TGCTAAAAAG GATTGACCAT	13980
AAAAAGTCTT GATTCCTAAT TTATGCAACA TGAGGTGGTT CATGGTTGTA TCCGAGAAGC	14040
CAAGAAAAAT TTTTGTCTTG ATAACCTTTT GGAGTTGGTC ATTTTCAAAA AGATAAGGTA	14100
GCAAGCGATA GGTATCGTCT CCACCGATGG CACATAGGAT CATGTCGATG CTATCATCAG	14160
AAAAGGCATG AATCAAATCC TCTGCACGAG CTTCAGGATG GTCCTTGATA AAGCTAATC	14220

398

CTTTTAACGA ATGGGGCAA AAGATGGGAT TGGTCCCAGA TCCTTGAGAC GTT

14273

(2) INFORMATION FOR SEQ ID NO: 41:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9828 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GTGAAGTGC	GCAAAAGGTG	CAAGTGATGA	GCTCAGGTTT	TTTAGCTCTT	GACATTGCCC	60
TTGGCTCAGG	TGTTATCCT	AAGGGACGTA	TCATCGAAAT	CTATGGCCCA	GAGTCATCTG	120
GTAAGACAAC	GGTTGCCCTT	CATGCAGTTG	CACAAGCGCA	AAAAGAAGGT	GGGATTGCTG	180
CCTTTATCGA	TGCGGAACAT	GCCCTTGATC	CAGCTTATGC	TGCGGCCCTT	GGTGTCAATA	240
TTGACGAATT	GCTCTTGTCT	CAACCAGACT	CAGGAGAGCA	AGGTCTTGAG	ATTGCGGGAA	300
AATTGATTGA	CTCAGGTGCA	GTGATCTTG	TCGTAGTCGA	CTCAGTTGCT	GCCCTTGTTT	360
CTCGTGCGGA	AATTGATGGA	GATATCGGAG	ATAGCCATGT	TGGTTTGAG	GCTCGTATGA	420
TGAGCCAGGC	CATGCGTAAA	CTTGGCGCCT	CTATCAATAA	AACCAAAACA	ATTGCCATTT	480
TTATCAACCA	ATTGCGTGAA	AAAGTTGGAG	TGATGTTTGG	AAATCCAGAA	ACAACACCGG	540
GCGGACGTGC	TTTGAAATTC	TATGCTTCAG	TCCGCTTGA	TGTTCTGTT	AATACACAAA	600
TTAAGGGAAC	TGGTGACCAA	AAAGAAACCA	ATGTCGGTAA	AGAACTAAG	ATTAAGGTTG	660
TAAAAAATAA	GGTAGCTCCA	CCGTTTAAGG	AAGCCGTAGT	TGAAATTATG	TACGGAGAAG	720
GAATTTCTAA	GACTGGTGAG	CTTTTGAAGA	TTGCAAGCGA	TTTGATATT	ATCAAAAAAG	780
CAGGGGCTTG	GTATTCTTAC	AAAGATGAAA	AAATTGGGCA	AGGTTCTGAG	AATGCTAAGA	840
AATAC'TGGC	AGAGCACCCA	GAAATCTTTG	ATGAAATTGA	TAAGCAAGTC	CGTTCTAAAT	900
TTGGCTTGAT	TGATGGAGAA	GAAGTTTCAG	AACAAGATAC	TGAAAACAAA	AAAGATGAGC	960
CAAAGAAAGA	AGAAGCAGTG	AATGAAGAAG	TTCCGCTTGA	CTTAGGCGAT	GAACTTGAAA	1020
TCGAAATTGA	AGAATAAGCT	GTAAAGCAG	TGGAGAAATC	CGCTACTTTT	TCGATTTTGT	1080
ATTCAAGTTT	TTAGATTATA	TATAGTAGCT	TGAAATAAGA	TATGAACAAC	TCTATTAGGA	1140
AAGTCAAATT	AATTTCTAGA	AATGTTTTAG	CAGCTACAGC	GTACTATTCC	AAACTCAACC	1200
AACTATAATA	GATCGAAACT	AGAATAGTAC	ATATCTACTT	CTAAAACATT	GTAAAAATC	1260
GATTTGACTT	TCCTTATTTT	ATTCCGCTAT	ATATAGTTTG	CTGTTTCTTG	TCGCTCCTCT	1320
GGAAAGCTGA	TATAATAGCT	TTATGAATAA	AAAACGAACA	GTGGACCTGA	TACATGGTCC	1380

GATTCTTCCC	TCGCTCTTAA	GCTTCACCTT	TCCAATTTTG	CTATCAAATA	TTTTTCAACA	1440
GCTCTATAAC	ACTGCTGATG	TCTTGATTGT	TGGACGATTT	CTTGGTCAAG	AATCCTTGGC	1500
TGCAGTAGGA	GCGACGACAG	CGATTTTGA	CCTGATTGTA	GGTTTACAC	TTGGTGTGG	1560
CAATGGCATG	GGGATTGTCA	TTGCTCGTTA	TTATGGGGCT	CGGAATTTCA	CTAAAATCAA	1620
GGAAGCAGTA	GCAGCCACCT	GGATTTTAGG	TGCTCTTTTG	AGCATTTCTAG	TTATGTTGCT	1680
GGGCTTTCTT	GGCTTGATC	CTCTCTTGCA	ATACTTAGAT	ACTCCTGCAG	AAATCTTCC	1740
TCAATCTTAT	CAATATATTT	CTATGATTGT	GACCTGTGTA	GGTGTGAGCT	TTGCTTATAA	1800
TCTTTTGGCA	GGCTTGTTGC	GGTCTATTGG	TGACAGTCTA	GCAGCCCTGG	GATTTCTGAT	1860
TTTCTCTGCC	TTGGTTAATG	TGGTCTGGA	TCTCTATTTT	ATTACGCAAT	TGCATCTGGG	1920
AGTTCAATCC	GCAGGACTTG	CTACCATTAT	TTCGCAAGGT	TTATCAGCGG	TTCTCTGCTT	1980
TTATTATATT	CGTAAAAGTG	TGCCAGAACT	CTTGCCACAG	TTTAAACATT	TCAAATGGGA	2040
CAAAGCTTG	TACGCGGATC	TCTTGGAGCA	AGGTTTGGCT	ATGGGCTTGA	TGAGTTCAAT	2100
TGTATCTATC	GGCAGTGTGA	TTTACAGTT	TTCTGTAAAT	ACATTTGGTG	CAGTGATTAT	2160
TAGTGCCAG	ACGGCAGCTC	GACGCATTAT	GACCTTTGCC	CTTCTTCCTA	TGACCGCTAT	2220
TTCTGCATCA	ATGACGACCT	TTGCTTCTCA	GAATCTAGGA	GCTAAGCGAC	CTGACCGTAT	2280
TGTCAAGGT	CTTCGAATCG	GCAGTCGTTT	AAGTATATCC	TGGGCAGTTT	TTGTTTGTAT	2340
TTTCCTCTTT	TTTGCCAGTC	CAGCTTTGGT	TTCTTCTTG	GCTAGTTCGA	CAGATGGTTA	2400
CTTGATAGAA	AATGGAAGTC	TCTATCTGCA	AATCAGTTCA	ACCTTTTATC	CCATTTTGAG	2460
CCTCTTGTTG	ATTTATCGCA	ATTGCTTGCA	GGGCTTGGG	CAAAGATCC	TTCTCTAGT	2520
TTCTAGCTTT	ATTGAACTAA	TCGAAAAAAT	CGTTTTTGTG	GTTTTGATTA	TTCTTGGGC	2580
AGGATATAAG	GGTGTATCC	TTTGTGAACC	TCTTATCTGG	GTTGCCATGA	CAGTTCAACT	2640
GTACTTCTCA	TTATTCCGTC	ATCCCTTGAT	AAAAGAAGGC	AAGGCAATCT	TGGCAACCAA	2700
AGTGCAATCC	TAGTTGGATT	TACTGAATAA	AATCCATTTC	CTCTAGTGAA	AATCGAAAAA	2760
ACTTGTGTTT	TCTTCTTTAG	TTTGGTGTG	AAAATAGTTT	AACAGACTTT	TGACTTCTTT	2820
TATATGATAT	AATAAAGTAT	AGTATTTATG	AAAAGGACAT	ATAGAGACTG	TAAAAATATA	2880
CTTTTGAAAA	TCTTTTGTAGT	CTGGGGTGTT	ATTGTAGATA	GAATGCAGAC	CTTGTCAGTC	2940
CTATTTACAG	TGTCAAATA	GTGCGTTTTG	AAGTTCTATC	TACAAGCCTA	ATCGTGAATA	3000
AGATTGTCTT	CTTTGTAAGG	TAGAAATAAA	GGAGTTTCTG	GTTCTGGATT	GTAAAAAATG	3060
AGTTGTTTTA	ATTGATAAGG	AGTAGAATAT	GGAAATTAAT	GTGAGTAAAT	TAAGAACAGA	3120

400

TTTGCCTCAA	GTCGGCGTGC	AACCATATAG	GCAAGTACAC	GCACACTCAA	CTGGGAATCC	3180
GCATTCAACC	GTACAGAATG	AAGCGGATTA	TCACTGGCGG	AAAGACCCAG	AATTAGGTTT	3240
TTTCTCGCAC	ATTGTTGGGA	ACGGTTGCAT	CATGCAGGTA	GGACCTGTTG	ATAATGGTGC	3300
CTGGGACGTT	GGGGGCGGTT	GGAATGCTGA	GACCTATGCA	GCGGTTGAAC	TGATTGAAAG	3360
CCATTCAACC	AAAGAAGAGT	TCATGACGGA	CTACCGCCTT	TATATCGAAC	TCTTACGCAA	3420
TCTAGCAGAT	GAAGCAGGTT	TGCCGAAAAC	GCTTGATACA	GGGAGTTTAG	CTGGAATTAA	3480
AACGCACGAG	TATTGCACGA	ATAACCAACC	AAACAACCAC	TCAGACCACG	TTGACCCTTA	3540
TCCATATCTT	GCTAAATGGG	GCATTAGCCG	TGAGCAGTTT	AAGCATGATA	TTGAGAACGG	3600
CTTGACGATT	GAAACAGGCT	GGCAGAAGAA	TGACACTGGC	TACTGGTACG	TACATTGACA	3660
CGGCTCTTAT	CCAAAAGACA	AGTTTGAGAA	AATCAATGGC	ACTTGGTACT	ACTTTGACAG	3720
TTCAGGCTAT	ATGCTTGACG	ACCGCTGGAG	GAAGCACACA	GACGGCAACT	GGTACTGGTT	3780
CGACAACCTCA	GGCGAAATGG	CTACAGGCTG	GAAGAAAATC	GCTGATAAGT	GGTACTATTT	3840
CAACGAAGAA	GGTGCCATGA	AGACAGGCTG	GGTCAAGTAC	AAGGACACTT	GGTACTACTT	3900
AGACGCTAAA	GAAGGCGCCA	TGGTATCAAA	TGCCTTTATC	CAGTCAGCGG	ACGGAACAGG	3960
CTGGTACTAC	CTCAAACCAG	ACGGAACACT	GGCAGACAAG	CCAGAATTCA	CAGTAGAGCC	4020
AGATGGCTTG	ATTACAGTAA	AATAATAATG	GAATGTCTTT	CAAATCAGAA	CAGCGCATAT	4080
TATTAGGTCT	TGAAAAAGCT	TAATAGTATG	CGTTTTCTTG	TGGAGATATT	TCCTTCAATT	4140
TTGCTACTAT	ATTAAACAAA	AATCAAAAAG	CAAACTAGAA	AGTTATGCTC	AAATAAAATC	4200
TAAATTTGAC	AATGTAAACC	GAGTCGGATA	GCTTTAAGTA	CTGTTTTGAG	GTTGAAGATA	4260
CGATTTTGA	TAGGAACCTA	TCAATTTTAG	ATTTTAAAGC	AGCATCAATA	AATTGCTTCC	4320
TTGTTTTGTC	ATAATTTTTT	TATTTAAAAA	ATTATGACma	GAGTGTGCTA	TTCTTTTTAT	4380
GAGAGGTGTA	TGAATATGAT	AAATGTATGT	GATAAATGTA	TGTGATGTTG	GAAAAAGAAT	4440
AAAAGAACTT	AGAATATCTT	CAAATCTTAC	TCAAGATAAG	ATTGCTGAGT	ATTTGTCTTT	4500
GAATCAAAGC	ATGATTGCCA	AAATGGAAAA	AGGTGAAAGG	AATATCACGA	ATGGATTTAA	4560
GTAATAAAGC	TTCAAATCTT	AGAAAAAAGT	TGGGAGCTGA	TGGTGAATCG	CCGATAGATA	4620
TTTTTTAAAT	GGTACAAAAG	ATAGAAAATT	TGACGCTGGT	ATTTTATGGA	CTCGGAAAGA	4680
ATATTAGCGG	AGTCTGTTAT	AAAGGAACTC	AGTTCAGTCT	CATTGCAGTC	AATTCAGACA	4740
TGCCATTAGG	AAGGTAAAGA	TTTTCTTTAG	CACATGGACT	GTATCATCTT	TATTATGATG	4800
AGGTGAAGAA	GAGTTCAGTC	AGTCTTATCT	TGATTGGTGA	AGGAGATGAA	ACTGAAAGAA	4860
AAGCGGATCA	GTTTGCTTCT	TATTTTTTAA	TTTTCCCATC	TTCACTGTAT	AGGATGGTTG	4920

401

AGGAAATCAG	AGAAAATGCC	AATAGAACTC	ATCTTGAAGT	AGAAGATATT	ATAAAAATTGG	4980
GTCAGTTTTA	TGGTATCAGT	CATAAAGCTA	TGTTATATAG	ATTGAGGAAT	GATGGATACC	5040
TTGATGCAGA	AGAAATTAAA	AATATGGATA	TTAGTGTTAT	AGAGACAGCT	TCAAGATTAG	5100
GCTATGATAC	AAGTTTATAT	CGTCCTTTGT	CAGAAAGTAA	AAAAGAAATG	GCATTAGGAT	5160
AATATATTAA	TTCAACTGAA	CAACTTTTAG	AAAATAACAG	AATTTGCGAA	GGGAAGTATG	5220
AGGAACTGTT	ACTAGATGCT	TTCAGATATG	ATATTGTATA	TGGGCTAGAT	GAAGAGGGGG	5280
GAGTTGTCGT	TTGACTAGTC	GTGTATTTAT	TGATGCAGAT	TGTATTTTCAG	TATTTTTATG	5340
GGTTGGCACT	GAACATCTTT	TAGAAAAGCT	CTATTTGGGT	AAAATTGTTA	TTCCACAAGA	5400
GGTGTATGAT	GAAATCAATA	TACCTACAAT	TCCCCATTTA	AAATCTAGGA	TAGATCAGTT	5460
GGTAGCTAAG	GGTTCAGCTG	AGATTGTGAG	CATAGACATT	GGAAGTGAAG	AATACGCATT	5520
ATATAGAGAT	TTAACAAGAA	ATCATGATAG	TAACAAGATT	ATTGGTAAGG	GAGAAGGGGC	5580
ATCTATTTC	TTAGCGAAAA	AGCATAATGG	GATATTAGGA	AGTAATAACC	TAAGAGATGT	5640
TAAATCATAT	GTAGAAGAAT	TTTCTTTAGA	ATATATGACA	ACAGGAGATA	TACTGATTGA	5700
AGCGTTTAAA	GCGTAATTTA	TTACTGAATA	AGAGGGCAAT	CATATCTGGA	ATAATATGCT	5760
TAAAAAGAGA	AGGAAAATTG	GTGCAAATTC	ATTTTCAGAC	TATCTTCGTG	GAAGTATTCA	5820
TCAAAATAGA	CAAAAATAAA	TTTGGATAAA	TCGAACTCAC	TATTCAGGAG	GCATATGAGC	5880
AATTCGAAAA	AGAAAAGTGT	CAAATTGAGC	CTATAGGAGT	AGAAGTGAAA	TAGTAAGTCC	5940
TGCATAGTGG	ATGAGAGAAA	AGTTCCTCTT	GAAGTTTTC	TGAAGTATCA	GTCGCATGTC	6000
AAACGATATG	TAGGGTAATG	TGAGAGGGGA	TAGCGAGTAG	TTTTTGGTTA	TTTTATCAAA	6060
AAACTTATAT	TTTATTATAC	CGAATGATAA	AATATAATAA	AAATGATAGA	ATAAGGAAAA	6120
AACATGAATG	TCAAAAAGAT	AATGTCAATT	TTTCAATCCT	TTTATGTTGA	TGTCAGTATT	6180
GAGGAACTGA	CTTTGACTTT	ACCAATCAGT	TTTGTAAGAA	GCTTTGAGTA	TACTCAAATG	6240
ACTTTTCATA	AGGAATCATT	TTTATTGATT	AAAGAAAAGA	GAAGGGGGAG	TTTGAGTTCA	6300
TTTGTTACTC	AGGCTCGCAC	TATGGGTGAA	AAAGCCAATA	TGGATGTTGT	TTTGGTGTTC	6360
TCGAAGTTAT	CAGACAGTGA	AAAAAAGCAA	TTACTTCAAG	CTAGAGTTCC	GTTTGTAGAC	6420
TTTAAGGGAA	ACCTCTTCTT	CCCTCCATTG	GGACTAGTAC	TCAATGCGAA	TGATACTGAA	6480
GTCCCTAAGG	AATTAACACC	TAGCGAACAA	TTAACGTGGA	TTGCCTTTTT	ATTGACAAAA	6540
GGTCAAAAAG	TAGTAGATGT	TGATTGCTTC	TCACAAGTCA	CTGGACTTCC	AAACTCAACA	6600
ATTTATAGGT	GTTTGAGGAC	TTTTAAAGCT	TTATATTGGT	TAAACAAGCA	AAATAAGCTT	6660

402

TACACATATA	CGGTGTCAAA	GAAAGAATTA	TTCTTAAAAAT	CCGTGTCATG	TTTATTTAAT	6720
CCCATCAAAA	AACGGATTTT	ATTGCCAGAT	GGCGATATAA	AGCAGATAAA	ATCTGTTTCT	6780
AACCTTCTAT	ATGGTGGTGC	TTATGCTTTG	TCGCATTCAA	CTTTTTTAGC	TGAAACGGAT	6840
GAAAAATATTA	GCTATGTCAT	ATGGCAGAGA	AAATTCAATC	AGTTATCCTT	GCCACTTTCT	6900
CAGCATGTTT	TAAAAAGAAA	GATGCTAGAG	ATATGGAAAT	ATCGTCCTTT	TGTATCTGAG	6960
TTTTGGAATG	ATTTTAAAAA	TAATCATGAT	AAACAATTTG	TAGATCCGAT	TTCTCTTTAT	7020
TTGACCTTAA	AAGATGATGA	TGACCCACGT	ATAGAGGAAG	AGAGTGAAGC	ACTAGAAAAAT	7080
ATGATATTAC	AGTATCTGGG	AGAAGATGAT	GCCAGCTAAT	ACGAAAAGTTA	TTTTTCAAGA	7140
AATGTTTGCG	GATTTTCAGA	ACTATTATGT	TCTGATTGGG	GGAAGTGCTA	CCTCTATCGT	7200
ATTGGATTCG	CAAGGATTTA	AAAGTCGCAC	AACAAAAGAT	TATGATATGG	TCATCATTGA	7260
TGAAGTAAAA	AATAAGGAAT	TTTATACTAC	CTTGAATCAT	TTTTTAGAAT	TGGGAGAGTA	7320
TCAAGGAAGT	CAGAAAGATG	AGAAAGCGCA	GCTTTTTTCGA	TTTACAACAA	CTAATCCTGA	7380
GTTTCCTTCT	ATGATTGAAC	TATTTAGTAT	CTTACCAGAA	TATCCATTAA	AGAAGGACGG	7440
TCGAGAAATT	CCCTTACATT	TTGACCAAGA	TGCTAGTTTA	TCAGCCTTAT	TATTGGATGA	7500
AGATTATTAT	AATATATTGG	TGCATGAAAA	AGAAACCATT	CAGGGGTATT	CGGTATTGAG	7560
TAATTGTGGT	TTATACTCTT	CGAAAAATCTC	TTCAAACCAC	GTCAGCTTCC	ATCTACAACC	7620
TCAAAACAGT	GTTTTGAGCA	GCCTGCAGCT	AGCTTCCTAG	TTTGCTCTTT	GATTTTCATT	7680
GAGTATTAAT	TATTTTTAAG	GCTAAAGCTT	GGCTGGATAT	GAGGGAGCGC	TCTGCCACAG	7740
GTGCTCAAGG	TTTAAGTAAG	TCCATTAAAA	AGCATTTGAA	TGACCTTACC	CGTTTGACAG	7800
CTTCCTTGCT	AGGAGATGAA	AAGTTATCGG	CTATAACATC	AAGTAGTGCG	GTAAAAGCAG	7860
ACATGCACCG	CTTTGTGATA	GAATTAGAGC	CTGTGAAGTC	AACTATTCTT	CAAAATAATG	7920
ACATTTTCATT	GGATCAAAAT	GAAATTTTGT	AAATTCCTGAA	AAATTTTCTC	GATGGTTAAA	7980
ATAATTGTAG	CGAGATGGCT	ATATTGAATT	CGTCTATATC	TGGAAACTAG	AAAAAACTTC	8040
AATTTCAGGA	GAAAAAGAA	TCAATCTTCC	CACAATCAAA	CGTATAGTAT	CAAGGTTTTT	8100
CAAGACCTGA	TATTATGCGT	TTTTTGCTTT	TCAAAACTTT	TTGCCCAGTC	TTCGTTTTTA	8160
TCCTCTAGTC	ACTTGATTG	TTTCAGGTGG	TTTTTTAGTA	TAGTAGAATG	AAACGAGAAC	8220
AGGACAAATT	GATCAGGACA	GTCAAATCGA	TTTCTAACAA	TGTTTTAGAA	GCAGAAGTGT	8280
ACTATTCTAG	TTTCAATCTA	CTATAGTTAA	ATCTGCGGTC	AAGTCTACTG	GTGAATCTAT	8340
GATTGTAATA	CTCTTCCAAA	ATCTCATCAA	CCACGTCAGT	CTTGCCCTGC	AGTCTGTATC	8400
TTACTGACCA	AGCTAGTGAT	GGATTTAGAA	TAGGTGATTT	GGAGCGTCCT	ATTAGCTAGG	8460

403

AAATGCTGCT CATAGTCCTT TGCTGAGGCT AGGGTGTTC AACATTCAAC ACTCAACTGG	8520
TTGATCTAGT TGATAGGAAG GGAGTTACTA TAAAATACTC AGGCTTCCAT CATATTTTTT	8580
GAAACGATTG TGTAATCAAA ATGTACCAAT ATTGTAGTAT TGGTACAGAA GATGTTGTGA	8640
ATGGATAAAT ATATCATAAC TGCTATCTCA AAAAGATTTC ATATGTCTGT GCATATATAA	8700
TAGACTTCCT GCAAAACTAG AATCCTAGTT CATGATTGAT AATACCAGCA ATCAAATTCA	8760
TTCGTAATCC AAAGCGTTTA CGATGATTTC GATAGGTTGT TGAAAACATT TTAAACGTTT	8820
CTACTTTGGC AAAGATGTTC TCAACCTTGC TTCTCTCCTT AGATAGCGCA TGGTTATAGG	8880
CTTTATCTTC AGCTGTTAGC GGCTGAGTT TGCTGGATT ACCTGGAGTT TGTGCTTGAG	8940
GACATATCTT CATGAGCCCT TGATAACCAC TGTCAGCCAA GATTTTACCA GCTTGTCGGA	9000
TATTTCTGCA ACTCATTTTG AACAACTTCA TATCATGACA ATAGTTCACA GTGATATCCA	9060
AAGAAACAAT TCTCCCTTGA CTGTGACAA TCGCTTGAGC CTTCATAGCG TGAAATTTCT	9120
TTTTACCAGA ATCATTCGCT AATTCTTTTT TTAGGGCGAT TGATTTTTAC TTCCGTCGCA	9180
TCAATCATTA CCGTGTCTC AGAACTAAGA GGAGTTCTTG AAATCGTAAC ACCACTTTGA	9240
ACAAGAGTTA CTTCAACCCA TTGGCTCCGA CGGATTAAGT TGCTTTCGTG AATACCAAAA	9300
TCAGCCGCAA TTTCTTCATA AGTGCGGTAT TCTAGGCTTA ATTTAGGTTT TCGTCCACCT	9360
TTTGCGTGT TAAGTTGATA AGCTGTTTTT AATACAGCTA ACATCTCTTT AAAAGTCGTG	9420
CGCTGAACAC CAACAAGACG CTTAAATCGT GTATCAGTTA ATGTTTACT TGCTTCATAA	9480
TTTCGCAGGG AGTCTATTGA CTCTTTGGTA GGTGTCAATG TTTTTTTCAT CTATCCCAG	9540
AATTATTTTC CCGCCATTG TATTTGCAAA TGCTGAGTAG GTTTCCCAGA AAGACTCTGG	9600
AAGATTGTTT TTAGCTTTTT TGTATTCTAA ATCAACCCTT TCAAATTTTA AGTCCATATT	9660
TTTCCTTTAC ATCTGTTTTT TGTGGTTCTG GTATTTGTTC AAGTTGAGTG ATAATATAGC	9720
GAATTGAATT TCGAGAGTTT TTAATCAGTT AATTTCTTTT TTAACCCACT TTAATTGCTT	9780
TTTTAACACG GGTAAAAAA GAAATTAAAG TGGGTTAATT TTTCTTGA	9828

(2) INFORMATION FOR SEQ ID NO: 42:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3369 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

404

CCGCGAAAGA TATTTTGTGA CAAGAGTTTG GACGTGAGGT CCGTGGCTAT AATAAAGTAG	60
AAGTTGACGA GTTTTGTAGAC GATGTCATCA AGGACTATGA AACCTATGCT GCCTTGGTCA	120
AGTCACTTCG TCAGGAAATT GCGGATTTGA AGGAAGAATT AACTCGTAAA CCGAAACCTT	180
CACCAGTTCA AGCAGAACCC CTTGAAGCGG CAATTACAAG TTCTATGACG AATTTTGATA	240
TTTGTAAACG CCTGAATAGA TTGAAAAAG AAGTTTTTGG TAAACAAATT TTAGATAACT	300
CAGATTTTTA AGTAGTTAT TTAGATGTGC AATTTTTTGA TAATCGCGTG AGGAGAATTG	360
TTTCTCATGA GGAAAGTCCA TGCTAGCACA GGCTGTGATG CCTGTAGTGT TTGTGCTAGG	420
CGAAACCATA AGCCTAGGGA CGAGAAATCG TTACGGCAGT TGAAATGGCT AAGTCCTTGG	480
ATAGGCCAGA GTAGGCTTGA AAGTGCCACA GTGACGGAGT CTTTCTGGAA ACAGAGAGAG	540
TGGAACGCGG TAAACCCCTC AAGCTAGCAA CCCAAATTTT GGTCGGGGCA TGGAGTACGC	600
GGAAACGAAC GTAGTATTCT GACTGCTATC AGCTAGAGCT GTTAGTGGTA GACAGATGAT	660
TATCGAAGGA AGTGGTCCTA GTCACTTCTG GAACAAAACA TGGCTTATAG AAAATTGCAT	720
ATAGGTTGGG GCTGAGAAAT TTTCTCAACC TCATTTTTTA AAGTGGACAT ATAGAAAGGT	780
CTTGCAAGAC TGTAAATGA AAAAGAATT TAATTTAATT GCAACTGTGG CAGCAGGGCT	840
TGAGGCTGTC GTTGGTCGTG AAGTGCGAGA GTTGGGCTAC GATTGTCAGG TTGAAAATGG	900
ACGTGTTTCG TTTCAAGGAG ACGTGAGAGC TATTATCGAA ACCAACCTTT GGCTTCGGGC	960
AGCAGATCGT ATCAAAATTA TCGTAGGAAC GTTCCAGCT AAGACTTTTG AAGAGCTATT	1020
TCAGGGAGTT TTCGCTTTGG ATTGGGAAAA TTATTTACCA CTTGGAGCTC GGTTCCTGAT	1080
TTCAAAGCT AAATGTGTTA AGTCCAACT TCACAATGAG CCCAGTGTTC AGGCTATTTT	1140
TAAGAAAGCT GTTGTCAAGA AATTGCAGAA AACTATGCT CGCCAGAAAG GGGTTCCTCT	1200
GATGGAGAAT GGCCAGAGT TTAAGATTGA GGTCTCTATT CTCAAAGATG TGGCAACTGT	1260
CATGATTGAT ACGACCGGGT CTAGCCTCTT TAAACGTGGT TATCGTACCG AAAAAGGTGG	1320
CGCTCCTATC AAGGAAAATA TGGCAGCAGC CATTTTACAA CTTTCTAACT GGTATCCAGA	1380
CAAGCCTTTG ATTGATCCGA CCTGTGGTTC GGGGACTTTC TGTATTGAGG CAGTTATGAT	1440
TGCTAGAAAG ATGGCGCCAG GTCTTCGTCG CTCTTTTGCA TTTGAGGAAT GGAAGTGGAT	1500
CAGCGATCGC TTGATTCAAG AAGTGCGCAC AGAAGCGGCT AAAAAAGTAG ACCGTGAGCT	1560
TGAGCTGGAT ATCATGGGCT GTGATATTGA TGCTCGCATG GTGGAAATTG CTAAGGCCAA	1620
TGCTCAGGTA GCTGGTGTG CAGGAGACAT TACTTTTAAG CAGATGCGCG TGCAGGATTT	1680
ACGTTCCGAT AAAATCAATG GAGTAATCAT TTCCAATCCG CCTTATGGTG AACGTTTGTC	1740
AGATGATGCA GGGGTGACCA AGCTCTATGC TGAGATGGGG CAAGTATTTG CACCGCTGAA	1800

405

AACTTGAGC	AAATTTATCC	TGACTAGTGA	TGAAGCTTTT	GAAAGCAAGT	ATGGTAGCCA	1860
AGCAGATAAG	AAGCGTAAGT	TATACAACGG	AACCTTGAAA	GTGGATCTAT	ATCAATATTT	1920
TGGTCAGCGT	GTCAAACGGC	AAGAGGTAAA	ATAGAAAGGG	ATACTCATGA	GTAAAAAAG	1980
ACGAAATCGT	CATAAAAAAG	AAGGTCAAGA	ACCGCAATTT	GATTTTGATG	AAGCAAAAGA	2040
GCTAACAGTT	GGTCAAGCTA	TTCGTAAAAA	TGAAGAAAGT	GAATCAGGAG	TCTTGCCTGA	2100
GGATTCCATT	TTGGACAAGT	ATGTTAAGCA	ACACAGAGAT	GAAATTGAGG	CGGATAAGTT	2160
TGCGACTCGT	CAATACAAAA	AAGAGGAGTT	CGTTGAAACT	CAGAGTCTGG	ATGATTTAAT	2220
TCAAGAGATG	CGTGAGGCTG	TAGAGAAGTC	AGAAGCTTCT	TCGGAGGAAG	TTCCATCTTC	2280
TGAAGACATC	TTACTACCCT	TGCCTCTGGA	CGATGAGGAG	CAAGGCTTGG	ATCCTCTATT	2340
GCTAGATGAT	GAAAATCCAA	CAGAAATGAC	TGAAGAAAGT	GAAGAGGAGC	AAAACCTTTC	2400
TCGTCTGGAT	CAAGAGGACT	CAGAAAAGAA	AAGTAAAAAA	GGCTTTATTT	TGACCGTTTT	2460
GGCGCTTGTA	TCAGTAATTA	TTTGTGTCAG	TGCTTATTAT	GTCTACCGTC	AAGTGGCTCG	2520
TTGACTAAG	GAAATTGAAA	CTTCTCAATC	AACCTACAGC	AATCAATCGG	ATGTGGATGA	2580
TTTTAATACA	CTTTATGACG	CCTTTTACAC	AGATAGCAAT	AAAACGGCTT	TGAAAAATAG	2640
CCAGTTTGAT	AAACTGAGTC	AACTCAAGAC	TTTACTTGAT	AAGCTGGAAG	GTAGTCGTGA	2700
ACATACGCTT	GCCAAATCTA	AATATGATAG	TCTAGCAACG	CAATCAAGG	CTATTCAAGA	2760
TGTCAATGCT	CAATTGAGA	AACCAGCTAT	TGTGGATGGT	GTGTTGGATA	CCAATGCCAA	2820
AGCCAAATCG	GATGCTAAAT	TTACGGATAT	TAAACTGGA	AATACGGAGC	TTGATAAAGT	2880
GCTAGATAAG	GCTATCAGTC	TTGGTAAGAG	CCAGCAAACA	AGTACTTCTA	GCTCAAGTTC	2940
AAGTCAAAC	AGCAGCTCAA	GTTCAAGTCA	AGCAAGTTCA	AATACGACTA	GTGAGCCAAA	3000
ACCAAGTAGT	TCAAATGAGA	CTAGAAGTAG	TCGCAGTGAA	GTCAATATGG	GTCTCTCGAG	3060
TGCAGGGGTT	GCTGTTCAAA	GAAGTGCCAG	TCGTGTTGCC	TATAATCAGT	CTGCTATTGA	3120
TGATAGTAAT	AACTCTGCCT	GGGATTTTGC	GGATGGTGTC	TTGGAACAAA	TTCTAGCGAC	3180
TTCACGTTCA	CGTGGCTATA	TCACTGGAGA	CCAATATATC	CTTGAACGTG	TCAATATCGT	3240
TAACGGCAAT	GGTTATTACA	ACCTCTACAA	GCCAGATGGA	ACCTATCTCT	TTACCCTTAA	3300
CTGTAAGACA	GGCTACTTTG	TCGGAAATGG	CGCTGGTCAT	GCGGATGACT	TAGATTACTA	3360
AGCAGTCGG						3369

(2) INFORMATION FOR SEQ ID NO: 43:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9713 base pairs

406

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

AAGTTTACAA TTTAAATGAA TTAACAATTT TCCCAACTAA AAGCACTCCA GTTACCGCAA	60
CGTTTGTACT GAATGTACTA AATCGCATTC CATCAACTTC ATCTGTTTCG TCAACTTGAA	120
CAGATACTAA TTGAAGATTT AATACTTCTG CTGCCATAGC TAGCTCCTCC TATTTAAATT	180
TTTGGGATTA AGTACTTTAT CCACCCTCAT ATACTCTCTC CACCAGTAAA ATGCAAGCAA	240
TGATACAAAA TAGATTTAAC TATTTTATAT AGCGAAAAC TACAAATTTT TAAGAAATAA	300
TTTTTGCATT CTAAAGATA AAATAGGAAC TTTTAGTAAT AAATATTAAA ATAAATAAAA	360
TAATAGATAC TATAAAATTT GGAAGTATTA ACCCAAAAAG ATTCATATCA TCTATTAAAA	420
TATCCTCTAA AGAGTAGTAT ATTAAAGCCA TAATTTTAAT GTTAAGTAAA AATGCAATTA	480
ATGAAGTAAC AAATGTCAAA AATATAGCCT CACCAACTTT AATCTTAACC ATCTGGTAAT	540
TAGAAGTTCC TAAAATTTCA AATTGCTGAA TCTCAATCCT TTCTTGATGC GATGACAAAA	600
ATGCAATTGA AATAATATTT GCAAGTACTA TCAAAATTGG TGCTCCTACA TAGACAATAA	660
ATGCTACTTT TAGCTCTAAA TCACGTGCAT CTTGAAATTG AGATAGTATA TTCTGAGAAA	720
TCATTTGAAA ACTAGAAAT T AGTAATATAG CTCCTGTAAT TGCAGCACTG ATAGATTTTA	780
TATAAGACTT ACAATATAGT AAATCCACT TCGAAACAAT GAACATAAAA TTATTTCTAA	840
ATATAATTAT AGAAAGTAGT TTGATAAAAC ATGACTGTAT AAAAGGAGAT AATTGATAAA	900
TAATCACAAT ATCTAAGATT ACAATATTGA ATATTATCTG GGCCTTCGCT AAAATTGTGC	960
TATCTTGGA AATTTGTTGC AAAGAAAGCA ACCAGATAAC ACTAAAACCA GCCAATAGCA	1020
GTATTCCTTT TACTATTGAA AGAACATGCC TTATTTTAGA ACTCTTCCTA TTTCTAATCT	1080
TCTTGAACGT ATAAAAGCAA CCACTTAGAA AGGCTAAAAA TGAAATCAAC ACTACTGTAA	1140
TGATACATCC AACAGCACTC GTTTGAAATT GGATATCAGG TAATATATTT TCCCCGAAAA	1200
AGTATTGTAA AAAATAATAA TAATTTGACG TAACAAATAT AGAGCATAGA TATGCAATAA	1260
AACTAATAAT CGAGGAAATG ATAAAAATCT GTCCCCCAC AAGAAATGAT AGTTGAAGGC	1320
GACTTGCTCC CAACACCTCC AGAAGTTCGT AATCATCTCT AAAAATTTCA ACCAACATAT	1380
TTATTATGTT AGAGAGCACA AAGAATAATG TTAATCCTCC GAATACTATC GGAAACATAA	1440
AAATTGGTTT AGGATCTGGA AGTCCGACAA ATACTTGCGA ATTATCTCTA ACATTAATTA	1500
CCCCATTAAC AGCCAATCCC ATAACATAAC TCGAAACAAA AATTACTGGT GAAACGCCTA	1560

407

ACCATTGTTT CTTATTATGT AAAAATTGAT AGTAAACTAA TCTGAGCATC TCTATTCCTC	1620
CGTAGTTGAT TGTACCTCTA AGATTTTATA CAACTCTTCC CCGCTAGGTC TATGAAGTTC	1680
TTTGAAAATT TTTCCATCTT TCAATATTAA TGCACGATCA GTTTTCGAGG CCAATTCTAT	1740
ATCGTGCGTT ACCATAATTA CACACTTACC CGCCCCTACT AACTCTCTCA ATAATTCAAA	1800
AATTACTTCA CGAGAAACGC TGTCTAAAGC CCCAGTTGGC TCATCAGCAA ATATTATATC	1860
ACTATCAGCA ATAACCGCTC TAGCTATAGC AACCTTCTGT TGTCTCCAC CAGACAGAGT	1920
TCCAACAAAA TCGTTTAAGC CAGCATTAAA CTTCAATCTT TTGAGTAAGT TTTCTACATT	1980
TTTAATAGTT AATTTTTTTT GTGATAATCG CAAAGGAAGT GCTATATTTT CTATTACCGG	2040
CAGGGAAGGT ATTAAATTGT ATGCTTGAAA TATAAAAGAT ACTTCGTTAC GTCTTATACT	2100
TGACAATTTT GCATTTCTGA TTTTATAGGG GTTGATTCCA TTAAAATTA CTCCCCACT	2160
TGTTGGTTCA AGCAAACTAG AAATACATTT TAATAAGTT GACTTTCAG AACCACTAAT	2220
TCCTAGAATA CTTATAAATT CTCCTCTCGA AGCAGAAAGA GAAACATTTT TCAGCACTTG	2280
CAACGTTTTA TTATTTCTTA GTAAAAATG ATGATACAGC CCTTTCACCT TTAATATATA	2340
ATCTTTATCC ATATTCTTGC CTCCAATCAC TTAATTTTGA AAAGTGTTC ATTTTCCAAT	2400
TTATATATAT CAGTGATCT CTTGTCATTT AAGTCATAAT GATGTGAAAC TTCAATAAAT	2460
GAAATACCTA AATTGAACAG AATATCATGT ATGGAATTTG AATTATCATT ATCTAAATTA	2520
GCTGATATTT CGTCAAAATA GTACACTTTA TTATTTCTAA TCAGAGCTCT AGCTAAAGCT	2580
ATTTTTTGTT TTTGACCTCC AGACAAATTA CTACCATTTT CACCACATG ATAATTTAGT	2640
ATATCTATCT TTTCTAATTC TTCATATAGA TTTACCTTTT TTAACACCTC AATTATCTGA	2700
TCATCTGAAA AATATTCATT TTGAAATAAA GTTACGTTCT CACGAATAGT AGTGTCAAAA	2760
ATATATGGTG TCTGATCAAC TGTGGTATT GAATCTGAAC TCTTTTCCC ATGTGATAAC	2820
AAATTTACAT AACCTTTTTG TGGCTTTAAA GAACCATTA TTAATTTAA AATCGTTGTT	2880
TTCCCCTAC CAGAAGTCC TGTTAATAAT ACCCTAAATG GTGACTTAAA TGAGAAGTCA	2940
ATACTTAATT TATTTTCTGG TGTAATAGAA TATACAACAT CTTTCATGTG TATCTCATCT	3000
ATTGATGAAG TATACAGTCC GTTATTATCA TGTTCAGCGT CTATAAAATT CTTCTCTCCA	3060
CTTAAGTATT TTAAAAACGG TTTCCTTAAA TCTTTGGTTG TATTTATCTT ATTTAATGAA	3120
TAGGCAATTG ATTGTATCGG CCCTAAACT TTATCGTTTG CTAAGAAAAT ACCTATCAGT	3180
TCACTAAAAG AAAGGCTTTT ATGATAAATT ACAAAAATAC ATCCTACAAC CAAGGGAAGT	3240
AGAAAGCAAA AACCTGAAAT TAGTACTGCA ACCAATTTTG AAAGAACCTC TGATCGTTTC	3300

408

AAATTAAAAG TAGAATCTTC TAGTTTATCC AACTTTTTAT CCGACAAACT AATTATTTCT	3360
TTAGTAACAG AATAAGATTT TAATGTCTTA AAACCATTAA AAATTTCTTT TATTATGTGA	3420
GTATACTCTG CATTGCTGTT AGAGTACTCA TTAGCTGAAT TAGACAACAT CTTCTTCATA	3480
AAGACAGGTA CTATAATCGG CAATGCTGAT AATACAATAA ATATTATTGA nACTAGGAAG	3540
TTTAAATAAA GCATAAAACT TAGAGAGACG ATGAACAACA ATATTGAAGA AATTATTTCA	3600
AAAATTTGTC TAAAATAGTT TTCTTCGATT AATCTCAAAT CATTTGACAA AACTGAAATA	3660
ATAGATGAGT AATCTTTAAC CATTTCAGAA GAAAGATACT GTTCTCTAAA ATATCCTTGT	3720
TTAATTTTTA CATTTATATC TTTAGTTATT GATGCTTCCG TTAATTCTAA ATAGTAATTT	3780
GATATATAGA TTGCTGACCA ACCCAGAATA CTTATAGCAC CAAATCTTAG AACGTCAGAA	3840
AATGAGGAAG TCTGATTTAA ACTACCTGCA TATACAATAA TTCCTGAGAG CAAGACACCA	3900
TTAAACGAAG ATAGAAATAT TAAAATCCCC ATTAATATAA GTTTAGTCTT TTTTATAAAT	3960
TTTAAATAAT TCATAAGTTA TTCCTTCCCA CTTCTTCAA GAAATAATTT AAAGTATCAA	4020
TCATTAAGAG AACATCTGAT GGAGTAAAAC CTCCATGACC AGCTGCTTTG TTTAAATACA	4080
ACAAACTTTT AACTCCAATA GAATTTAATT TCTTTGACCA CTCTATCACT TCGTTATTAT	4140
TAATATATGG GTCTTTCTCA CCCCCAATAT TAACTATAAC AGTATTTGAG TCTCGTGCCT	4200
TTCAATATTT TTGCATAGGC GAATATGACT TTATATAAGC CTTTACTTCA GGGTCTCTAA	4260
TATCTCCCCA CTCTGCTATT TCGGTCTTAG AAAGAGGATC ATTTGGATTC TGAAGTGAT	4320
CATAAGGATT TATAAATGGC GAAAATAAGA GAATGCTTTG CAATAAATTT TTTTCCTCGT	4380
TCAACACCGC ACCAGCAATT ATTCCACCTG CACTAGAAGT TATTAAACCT AATCGCTTAC	4440
TGTCAATTAC ATCATTTTCC CTTAAATAAT TTACTCCCTC AATAAAATCT CTGATAGAAT	4500
TCCATTTGTT TAACGCCTTT CCTGAGCGAT ACCATTACAC ACCCAAATAG CCTCCACCTC	4560
TTACATGAAC TATAGCATAA ATAAAACCTG CATCTATTAT AGATAACATA ATTTCATCTA	4620
AATCAGAATT ATCATTTCTTA CCATAAGCCC CATAGACACT TAGAATACAT TTTTCTCTTC	4680
TTGGGAGCTC ATCCGTATCT TCACTTTTCC AAAATAAAGA AATCGGTATG CTTACATCAT	4740
AACTGTCTTT TTTAGTCCAA ATCACCTTAG AAAAATATTT AGTATTATTC GATTTTATGA	4800
TGGGTCTTTC AAATTCAGTT TTTAATGTAT TTTCTATTAA ATCAAAACTA AGTATTTTTT	4860
CGTAAAAAGT TCTCCTCTCT AAAAAACAGAA GAACACGATC AGAAAATGAA TTTTCATAAA	4920
GTGTTGTCTT TTCATCAAAT GTTATCTTAT TAACACTCAA CTCCCTCAAA CTATTATTTT	4980
TAAATGTAGC AAGATAAAAG ACGGAATTCG CTGCGTTTGA ACAGTCTAAA AGGATATAAC	5040
GTCTTATACA GTGAACCTCT CTAGCCCTAT CTTGATATGG TATAGTAATA GAAACTCTGT	5100

409

CTCCCGAAGA AGTTTCCCTT AGAATTAGTT GATCTTCTT TTCTTCAGTT GAAGAGAGCC	5160
CAAGAAAGTA CTGTGCTTTT TCTGTACTAA ATAGAGCGAT ATCTCTAGGT GTTGGGGCTA	5220
CCGTTTCTGT GTAAGAGTGT CTAACAAAAC CCGTCCGGTC GAAACTGTAT AGAAAAATCC	5280
TGCCTTTCTG AAAGTCTACT GACTTTACAA AACAATTATT GCTATCAATG TGGACTATTT	5340
TTAATCGAAA AGAGCATTCG TTTTCTTCAA ACAGTTCCTC TTCTGTAAAG CTATCAAAAG	5400
ATTTATAGAA TAACTTACTT GGCCTCCCGT ACTCTTTGGA GCGAGTATAC ATAACACCGA	5460
ATTTACCCAA ATAGAACGAA CTTTCTACTG AAATATCTTC AATGATAAAT AACTCTTCCA	5520
TAGTATATTT TTTTATTCCA ATTAAATTAG TCGTACGCAG TGAGGATACA ACCAAAATA	5580
TATAACTCTC ATCAGATGAA ATCCTAACAT CCTGTAAGAT ACTATCATCT GGCAAAGTAT	5640
ATTTTCCAC ATCAAAGACA ATTTAAGTG AATTTGAATT GTCTAAACTG GAAGAACTAA	5700
CCTTAGGAAT CCAGTCATTA TCTTCGACAT ACCATTCCCT TATTACACCA GTATTGGGTA	5760
TACTCCAATT ATCAAATTGG TACCAATATC GCCCTCTCCT AAATATCAA GAATTCCATT	5820
TTTTTAATTC CTGAAATGAT GAAGAGATAG ACCTCTTATA GTGTGTTTTT TCCTGTATTG	5880
TATTTAAAAA TATTTCATTA CTCTGATTCA CAAGTATGAC CCCTTAATAA TGGTATCTAA	5940
ATATTATATT TGAGGAAGAA TCGTCAATTT ATTATCCATT ATTGATACCA ATCCAATTGC	6000
AACACCCGCA AATCCCGAAG CAATATCTGT TGTATCTTT AAACCATTAT CTCCCGCAAT	6060
AACAAATCCT TCTTCAATTA CACACAAATA TCTATAAAGT TGTTC AATTA ATTTCTTTTG	6120
TCCTGAAAAG TTATCATCGA TATCACTATA TATATTATTA GCAACTTCAA GACCACAAAA	6180
TCCGTAAAT AAACCTGGTA ATACACAAAA AACTACATCA GTTGCCCTCT CTAAAGAAGT	6240
TAAATATTTT AAGTATTTGC TTGACAAGAT TTCTTTATTT CTATTAATAA GTAAAAGCAG	6300
GCCAGCACTT CCAGTTGCTA GATATGGTAG TAATCTATGA CCTTGGCTGT ACTGCAATGA	6360
ATTATTACTA TCTACTTTAT AAGCAACTAA TTCTTTATCT ACAGCCAATT CTAGACCATT	6420
TTTATAGATA CTTTCACCAG TTAATTTATA AGCTTCACCG AAGAGCCAAG CTACCCCTGC	6480
GTGACCATAT AGTAATCCAC CAAAATTCTC ATAAGGATCG TTA CTCTGAA CATCACTAGC	6540
GCCAACCTTA CAAAAAGTTT CTGGATTTTC TATATAATTT AAAGTATATT CTCTAAGCCT	6600
AATTAGTATT TCTTCTCCTA GTTTATTATC AATTCCCCCT TTACTAAGAA AATACAGTCC	6660
AACCAGTAAA ATTCCAGCCT GCCCACTATA TAAATTTTTA TTTTGTGAAT TCTCAAATAT	6720
CTCTATAAAA TGAGTTGTAA AAAGTTCAAC TGCCCGATCT ATCTCCCAA ATTCATAAAT	6780
GAGCCAGATT GTACCAATTT TACCATCAA AAGACCAGAA AGGGACGATT TCTTAAAATT	6840

410

ATTTACTGCC TCATTAATAA CCTGTGTTTCG AATCTCATAA TAGTCATCAA ACTTGAAATT	6900
TTTTACTTTC TTAGCTAGTT GTTGATAACT CCAAAGGATA GCTAAATCTG AAAACGCAAT	6960
TCCTTGATTA AAATTCAGAC CATAATAATG AACTGGGAAG AATCTTGATT GAAATTCTTT	7020
ACGCCACTGT CCATAAGTTA GCGTAAACCC TCTCAATAAT TTTATAATAA AATCTTGAT	7080
ATCTTGCTCA CTCTCGATAG TTCTAATCTC ATGCATGGGT TTTAAACTT TTTTCCTGGA	7140
AATATTCTCA ATCTGTGGAC ATTTAGAATC TAGATATGAC AATAAACTTT CTACATAATC	7200
TATATGTTCT CTGTGATAAC CCAAAGACTC AAATAGTTTT TTTCCCTTCTA TCCTGGTTTG	7260
ACTTACATAG TTGTATGTCA AATCCGATGT AGTTACTAGT GGCATGTATA AATAATGAGC	7320
TATTTGTCTA ATACCATACC AATCTATCTC ACTGGGAAGT GTTCTCGCC ATGCTCTAAA	7380
ACCAGGGGCT GCAACTTTAT GTACAACTTT TTCATCATTT GAAAAGACAG CCTGTTCCCA	7440
GTCTATTATA CTAATCTCAT CTTCATCCTT AACCAAGATA TTTCCCTAAAT GTAAATCTTG	7500
ATGATATACA TTTTCAGAAT GAAACTTATT CGTTAAATCG ATGAGTTTTT CTACTATCTT	7560
TGAAACTCTC AATAGATAAT CTTTGGTCTT ATCAACAAC TCAATAAAG GAAAATTATT	7620
GGTAACCCAT CTATTTAGTG GAACGCCCTT CATATGTTCA ATTCCTAAGA AGGTGTGCTC	7680
CCAGATCTTA CCGTGCCAGT ATATTTTAGG CGTCTCACTC CATTCATTTA GAATTTTAG	7740
TGCTTTGCAC TCCGAAGCTA ATTTCTCTGA AGAATAAGTA CCATCAAATC CTAGACCTGT	7800
ATACGGTCTA GCCTCTTTTA AAATTATTTT TTTCCCATCT TCTTTTAGCC TAGCATTATA	7860
TATCCCACCA CTGTTTGAAA ATCTAATTGC ATTATCTATA ATAAAGGGAA AGTCTCCCTG	7920
TTTTTTATCT TTCTTGTCAA GCCATTTATT CAAAAAGTCA GGGGGCACTA TACCTTTTGG	7980
AATTTTAAAT ACTGGTAAAC GTTCATCTTT AACAACTTCA TCGCCAACAA TTAATTCATC	8040
AATAGCAACC TTCTTTTCAT CATCCCTTGA CGGCCTAAAC ACACCATACC TCAGATATAT	8100
TGGTGCTTCA TCCCAACGTT TATCGCTTAA AATATATGGC CCATTATATT GCTTTAAGGC	8160
ACTTCTAAC CTTTGCAAAA CCGACTCTAA TTCATTTTGA TTTGGATAAC ATGTAATAAA	8220
TTTACCAGAA AATCCTCGAC TAACCAATTT CCCGTTTCGC ATGATAAATT TGTCTTCTGT	8280
ACTAAGATGT TTAATGGAA TTCGCATTTT ATGGCAAATT TTTGCTACAT CTTGTAACAA	8340
TTTCATGTGA CTGTTATACT CTGAACTAAT GTGTATTTTC CACCCTTGTC TTCAACAAA	8400
TTTTCCAATA GGGTATTGAT AAACCCACTC ATCATTATTC ATTACTTCGT GCCAATTAAA	8460
AGGCAGACTT ACTTGGTACT TTATGCTAGT ATCTGTACTA TAATCATTAT TAGTGAAAAA	8520
GAAAGGATGC TCCAAATTGA AATTATAATC CATAACAAA TCTCCAAGAA ATTTTATCAA	8580
ACTTAATATA TCTATAGCTA GACAGACTTA TTAAATAAAA AAGGGAGAAT CCTTTGGATT	8640

411

CTCCCCATAT AAGCACTAAC ATTCCAACGT GCACATATTG GAACGACATC CATAACTCCA	8700
GAGAATCTCT AAAGTTTACA ATTTAAATGA ATTAACAATT TTCCCAACTA AAAGCACTCC	8760
AGTTACCGCA ACGATTTGTA CTGAATGTAC TAAATCGCAT TCCATCAACT TCATCTGT TT	8820
CGTCAACTTG AACAGATACT AATTGAAGAT TTAATACTTC TTCTGCCATA GCTAGCTCCT	8880
CCTATTTAAA TTTTGGGAT TAAGTACTTT ATCCACCCTC ATTATACTCT CTCCACCAGT	8940
AAAATGCAAG CAATTATACA ATGTTGTCAC ATAGAAAATA ATGTTTCCGT AACTTTTCAA	9000
AGTAAGTCC ATCTCTCTCC CAAAGCTGA AGTTAGTTT AGAAGTTACC TAAAAATCAG	9060
GTCACCTATT TAAAAAAGC AGCAAACTAT AACTAGTAG GTTCCACACC AAATGTAGTC	9120
CCATACTGCC CCATAAGTCA GATTTATAGC GCACCATACC TAAAAACATC CCAAGTGAAA	9180
CATACAAACA CCAAGCTAGA ATGGTTCCTG TATGATGTGC TAAGGCAAAT AAAACACTTG	9240
TCAAAGCAAC TCTGATATCT AATTTTCTGA CCAAATCCA TAAAATTCT CGATACAGAA	9300
ATTCTTCAAC CATACTCGCA TTGATTAAGA ACAATAAAAA TGAAAACCAA GGAATTTGAT	9360
GTTGAAGGCC AATTAAGTTT GCTTGATTCG TGCTTCCTTG AGCATGAATC AGACTAAAAC	9420
ATAGACTTAT AATCAGTAGG CTAACAAATT CAACACCAAG CCATTTTCATC CTAGATTTCA	9480
TATTGACCTT ATGCGCTTGT TTGCGTTGGC CATACATCCA TAAAAAGAA ATGAGTGACG	9540
AACCATAGAG AATCTGTAGT ATAGTTmACT CACCGATACA AAGAAATTTC AATAAGTATA	9600
GAGrTACCAA TAsGACATTT ACTTGTTGGA ATATATAAAC TGAATTATT CTTTTCATAG	9660
TTACCTCCGA AATAAATCTT CATAATCTAA ATCTAATACC TGCACAATCC TTT	9713

(2) INFORMATION FOR SEQ ID NO: 44:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8657 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

AAAGAAATTG TCAGAGAGTG GCTAGATGAA GTAGCAGAGC GGGCTAAGGA CTATCCAGAG	60
TGGGTGGATG TTTTCGAGCG TTGCTACACC GATACCTTGG ACAATACGGT TGAAATCTTA	120
GAAGATGGTT CAACTTTTGT CTTGACTGGG GATATTCCTG CCATGTGGCT TCGAGATTCTG	180
ACAGCCCAAC TCAGACCCTA CCTTCATGTA GCTAAAAGAG ATGCCCTCCT GCGTCAGACC	240
ATTGCAGGTT TGGTCAAACG TCAGATGACC TTGGTACTCA AGGATCCCTA TGCTAACTCC	300

412

TTCAACATTG	AGGAGAACTG	GAAAGGGCAC	CACGAGACTG	ACCACACAGA	CCTTAACGGC	360
TGGATCTGGG	AGCGCAAGTA	TGAGGTGGAT	TCGCTTTGCT	ATCCTTTGCA	GTTGGCTTAT	420
CTCCTCTGGA	AAGAGACTGG	CGAGACTAGT	CAGTTTGATG	AGATTTTGT	CGCAGCGACT	480
AAGGAAATTC	TCCATCTGTG	GACGGTGGAA	CAAGACCACA	AGAACTCTCC	TTATCGTTTT	540
GTCCGAGATA	CGGACCGTAA	GGAAGACACC	TTGGTAAATG	ATGGCTTTGG	ACCTGACTTT	600
GCAGTGACAG	GTATGACTTG	GTCAGCTTTT	CGTCCGAGTG	ATGACTGTTG	CCAGTATAGT	660
TACTTGATTG	CGTCAAATAT	GTTTGCTGTA	GTAGTCTTGG	GTTATGTGCA	AGAAATCTTC	720
GCAGCATTAA	ACCTAGCTGA	TAGCCAGAGT	GTTATTGCTG	ATGCCAAGCG	TCTTCAGGAT	780
GAAATCCAAG	AAGGAATCAA	AAACTACGCT	TACACCACCA	ACAGCAAGGG	CGAAAAGATT	840
TACGCTTTTG	AAGTGGATGG	CCTAGGAAAT	GCCAGCATCA	TGGATGATCC	AAATGTACCA	900
AGTCTACTAG	CTGCGCCCTA	TCTGGGCTAC	TGTTGCGTCG	ATGATGAAGT	GTATCAAGCT	960
ACTCGTCGTA	CCATTTTGAG	CTCTGAAAAT	CCATACTTCT	ACCAAGGAGA	ATACGCAAGC	1020
GGTCTCGGCA	GTTCTCATAC	CTTCTATCGC	TATATCTGGC	CAATCGCCCT	TTCTATCCAA	1080
GGCTTGACAA	CAAGAGATAA	GGCAGAGAAA	AAATCTTGCG	TGGATCAGCT	GGTGCCTGC	1140
GATGGTGGTA	CAGGTGTCAT	GCACGAAAGC	TTTCATGTAG	ATGATCCGAC	CCTCTACTCT	1200
CGTGAATGGT	TCTCCTGGGC	TAACATGATG	TTCTGTGAGT	TGGTCTTGGA	TTACTTGGAT	1260
ATTGCGTAAG	GGGCTCGCTT	TAGCTCAACC	GATTCTTATC	AGAATCACAA	GTTTACATTT	1320
AAAACGTAA	AATTTAAATT	TAGAATGAGG	TTTTACTTCA	TGGAAAATGT	TGTTGTACAT	1380
ATTATCTCAC	ATAGTCACTG	GGATCGTGAG	TGGTACTTGC	CTTTTGAAAG	CCATCGTATG	1440
CAGTTGGTGG	AATTGTTTGA	CAATCTCTTT	GATCTCTTTG	AAAATGACCC	TGAGTTCAAG	1500
AGTTTCCACT	TGGATGGACA	AACTATTGTC	CTTGATGACT	ACTTACAAAT	TCGCCCTGAA	1560
AATCGCGACA	AGGTCCAACG	CTACATTGAC	GAGGGCAAAC	TTAAAATTGG	TCCCTTTTAC	1620
ATCTTGCAGG	ATGACTACTT	GATCTCCAGT	GAAGCCAATG	TCCGCAATAC	CTTGATTGGT	1680
CAACAAGAAG	CTGCCAAATG	GGGTAAATCA	ACCCAGATTG	GCTACTTTCC	AGATACCTTT	1740
GGAAATATGG	GACAAGCGCC	TCAAATTCTT	CAAAAATCAG	GCATTACAGT	GGCGGCCTTT	1800
GGTCGTGGTG	TGAAGCCGAT	TGGATTGAC	AACCAAGTCC	TTGAAGATGA	GCAGTTTACG	1860
TCTCAGTTTT	CAGAAATGTA	CTGGCAGGGT	GTGGATGGTA	GTCGTGTTTT	AGGTATTCTC	1920
TTTGCCAACT	GGTACAGTAA	CGGGAATGAA	ATTCCAGTTG	ACAAAGATGA	GGCCTTGACC	1980
TTCTGGAAAC	AAAAATTGTC	AGATGTGCGT	GCCTACGCTT	CGACCAACCA	ATGGTTGATG	2040
ATGAACGGCT	GTGACCACCA	GCCTGTACAG	AAAAATCTGA	GCGAAGCCAT	TCGTGTGGCA	2100

413

AATGAACTCT	TCCCGGATGT	AATCTTTGTT	CATAGTTCTT	TTGATGAATA	TGTTCAAGCT	2160
GTAGAAGGTG	CGCTTCCTGA	ACACTTATCA	ACTGTTACAG	GCGAGTTGAC	CAGTCAGGAA	2220
ACAGATGGCT	GGTACACACT	TGCCAACACT	TCTTCATCCC	GCATTTACCT	AAAACAAGCC	2280
TTCCAAGAAA	ATAGCAACCT	CCTAGAGCAA	GTGGTAGAAC	CCTTGACTAT	TATCACTGGT	2340
GGACACAACC	ACAAGGACCA	GTTGACCTAT	GCTTGAAAAA	CACTTTTGCA	GAATGCGCCA	2400
CATGATAGTA	TCTGTGGCTG	TAGCGTGGAC	GAAGTTCACC	GCGAGATGGA	AACGCGTTTT	2460
GCCAAGGTCA	ACCAAGTAGG	AAACTTTGTT	AAAAGTAACT	TGCTCAACGA	GTGGAAGGGT	2520
AAAAATTGTA	CGGATAAGGC	TCAAAGTGAC	TATCTCTTTA	CTGTCATTAA	CACAGGCTTG	2580
CATGATAAGG	TCGATACTGT	CAGCACAGTG	ATTGATGTGG	CGACTTGTGA	TTTCAAGGAA	2640
TTGCACCCAA	CAGAAGGCTA	CAAAAAGATG	GCTGCTCTTA	TCTTGCCAAG	TTACCGTGTG	2700
GAGGACTTGG	ATGGTCGTCC	TGTAGAGGCT	ACAATCGAAG	ACCTCGGAGC	TAATTTTGAG	2760
TATAATTTAC	CAAAAGACAA	GTTCGCGCAA	GCTCGTATTG	CTCGTCAAGT	GCGCGTGACC	2820
ATTCCAGTTC	ACCTAGCGCC	GCTTCTTGG	ACAACCTTCC	AATGCTGGA	AGGAAAACAA	2880
GAACACCGTG	AGGGTATTTA	CCAAAACGGA	GTGATTGATA	CACCATTCTG	AACGGTGAGT	2940
GTGGATGACA	ACATCACAGT	CTATGACAAG	ACAACTCACG	AAGCCTATGA	AGACTTTATC	3000
CGCTTTGAAG	ACCGTGGGGA	CATCGGAAAC	GAGTATATCT	ATTTCCAACC	AAAAGGAACA	3060
GAGCCAATCT	TTGCAGAGCT	TAAGGGCCAC	GAGGTCTTGG	AAAACACAGC	TTGCTATGCT	3120
AAAATCTTGC	TCAAACATGA	ATTGACCGTG	CCTGTCAGTG	CGGATGAAAA	GCTAGAAGAA	3180
GAGCAACAAG	GTATCATCGA	GTTTATGAAG	CGTGAGGCTG	GACGGTCAGA	AGAATTGACA	3240
AACATTCTTC	TGGAAACTGA	GTTGACTGTC	TTCGTTGACA	ATCCACAAAT	CCGCTTCAAG	3300
ACTCGCTTTA	CTAACACTGC	CAAGGATCAC	CGTATCCGTC	TCTTGGTCAA	GACTCATAAC	3360
ACGCGTCCAA	GCAATGATTC	TGAAAGTATC	TATGAGGTGG	TGACACGACC	AAACAAACCA	3420
GCTGCTTCAT	GGGAAAACCC	TGAAAATCCT	CAACACCAAC	AAGCTTTTGT	CAGTCTGTAT	3480
GACGATGAAA	AAGGGGTGAC	TGTATCCAAC	AAGGGATTGA	ATGAATACGA	AATCCTTGGG	3540
GATAACACCA	TTGCCGTGAC	CATTTTGCGT	GCATCAGGTG	AGCTAGGTGA	CTGGGGCTAC	3600
TTCCCAACGC	CAGAAGCACA	ATGCTTGCGG	GAGTTTGAAG	TCGAGTTTGC	ACTTGAATGC	3660
CACCAAGCCC	AAGAACGCTT	CTCAGCCTAT	CGTCGTGCCA	AAGCCTTGCA	GACACCGTTT	3720
ACCAGCCTTC	AGCTTGCTAG	ACAGGAAGGA	AGCGTGGTG	CGACTGGTAG	CCTCTTGAGC	3780
CATTCTGTTC	TCAGCATACC	GCAAGTTTGT	CCAACAGCCT	TTAAGGTAGC	TGAAAATGAA	3840

414

GAAGGCTATG TGCTTCGTTA CTACAATATG TGTAAGTAAA ATGTACGTGT GCCAGAAAGT	3900
CAACATCTCT TCCTTGACCT ACTTGAACGA CCATACCCAG TTCATTTCAGG ACTATTGGCT	3960
CCACAAGAGA TTCGTACAGA ATTCATCAAA AAAGAAGAAA TTAAATTTCA AAAAGTAAAC	4020
ATCAAAAGAA AGGAGGGGCG AAAAAGTAAG AACTAACTGC TGATTCGCCC CTTTATGGT	4080
AAAAACAATG ACCATTGCAA CGATTGATAT CGGAGGGACT GGGATTAAAGT TTGCCAGTCT	4140
GACTCCTGAT GGGAAAATAC TGGATAAGAC AAGTATTTCA ACGCCTGAAA ACTTGAGGA	4200
TTTACTAGCG TGGCTAGATC AACGCTTGTC AGAACAGGAT TACAGTGGGA TTGCTATGAG	4260
CGTTCCAGGT GCAGTCAATC AAGAGACAGG TGTGATTGAT GGCTTCAGTG CGGTGCCCTA	4320
CATCCATGGC TTTTCTTGGT ATGAGGCGCT TAGCTCTTAT CAGCTACCTG TCCATTTAGA	4380
AAATGATGCC AACTGCGTTG GACTCAGTGA ACTACTAGCT CATCCAGAGC TTGAAAATGC	4440
AGCCTGTGTC GTGATTGGGA CAGGGATTGG CGGAGCCATG ATTATCAATG GTAGACTTCA	4500
TCGAGGTCGC CACGGTCTGG GTGGAGAATT TGGCTACATG ACAACCCTTG CCCCTGCTGA	4560
AAAACCTAAT AACTGGTCGC AACTAGCATC AACTGGGAAT ATGGTACGAT ACGTGATTGA	4620
AAAATCTGGT CATACTGATT GGGACGGTCG CAAGATTTAC CAAGAGGCCG CAGCTGGTAA	4680
TATCCTTTGT CAAGAAGCCA TTGAGCGCAT GAACCGCAAT CTGGCGCAAG GCTTGCTCAA	4740
TATCCAGTAT CTGATCGATC CAGGTGTCTAT CAGTCTGGGT GGCTCTATCA GTCAAAATCC	4800
AGATTTTATC CAAGGTGTCA AGAAGGCTGT TGAAGACTTT GTCGATGCCT ACGAAGAATA	4860
CACGGTCGCA CCAGTTATCC AGGCCTGCAC CTATCACGCA GATGCCAATC TCTACGGTGC	4920
TCTTGTC AAC TGCTACAGG AGGAAAAGCA ATGGTAAGAT TTACAGGACT TAGTCTCAA	4980
CAACGCAAG CTATTGAGGT TTTAAAAGGT CACATTTCTC TACCAGATGT GGAAGTGGCT	5040
GTCACCTCAGT CTGACCAAGC ATCTATCTCT ATCGAGGGTG AGGAAGGTCA CTATCAATTG	5100
ACCTACCGCA AACCTACCA ACTTTATCGT GCCTTGTCCT TGTGTTGTAAC AGTTCTAGCA	5160
GAAGCTGATA AAGTAGAGAT TGAGGAACAA GCAGCTTACG AAGATTTGGC TTACATGGTT	5220
GACTGTTCTC GAAATGCGGT GCTGAATGTG GCTTCTGCCA AGCAGATGAT TGAGATATTG	5280
GCTCTCATGG GCTACTCAAC CTTTGAGCTT TACATGGAAG ACACTTACCA GATTGAAGGG	5340
CAGCCTTACT TTGGCTATTT CCGTGGAGCT TATTCAGCAG AGGAGTTGCA GGAAATCGAA	5400
GCCTATGCC AACAGTTTGA CGTGACCTTT GTACCATGCA TCCAGACCTT GGCCCACTTG	5460
TCGGCCTTTG TCAAAATGGGG TGTCAAGGAA GTGCAGGAGC TCCGTGATGT AGAGGACATT	5520
CTTCTCATTG GCGAAGAAAA GGTATATGAC TTGATTGATG GCATGTTTGC CACGTTGTCT	5580
AAACTGAAGA CTCGCAAGGT CAATATCGGG ATGGACGAAG CCCACTTGGT TGGTTTGGGA	5640

415

CGCTACCTGA TTCTGAACGG TGTGTGGAT CGTAGTCTCC TCATGTGCCA AACTTGGAG	5700
CGCGTGCTGG ATATTGCTGA CAAATATGGT TTCCACTGCC AGATGTGGAG TGATATGTTT	5760
TTCAAACCTCA TGTACGCGGA TGGCCAGTAC GACCGTGATG TGGAAATTCC AGAGGAACT	5820
CGTGTCTACC TAGACCGTCT CAAAGACCGT GTGACTCTGG TTTACTGGGA TTATTATCAG	5880
GATAGCGAGG AAAAATACAA CCGTAATTTT CGCAATCATC ACAAGATTAG CCATGACCTT	5940
GCATTTGCAG GGGGAGCTTG GAAGTGGATT GGCTTTACAC CTCACAACCA TTTTAGCCGT	6000
CTAGTGGCTA TCGAGGCTAA TAAAGCCTGC CGTGCCAATC AGATTAAAGA AGTCATCGTA	6060
ACGGGTGTTGG GAGACAATGG TGGTGAACT GCCCAGTTCT CTATCCTACC AAGCTTGCAA	6120
ATCTGGGCAG AACTCAGCTA TCGCAATGAC CTAGATGGTT TGTCTGCGCA CTTCAAGACC	6180
AATACTGGTC TAACGGTTGA GGATTTTATG CAGATTGACC TTGCCAACCT CTTACCAGAC	6240
CTACCAGGCA ATCTCAGCGG TATCAATCCC AACCGCTATG TTTTATCA GGATATTCTT	6300
TGTCCGATTC TTGATCAACA CATGACACCT GAACAGGACA AACCACACTT CGCTCAGGCT	6360
GCTGAGACGC TTGCTAACAT TAAAGAAAAA GCTGGAACT ATGCCTATCT CTTTGAACT	6420
CAGGCCCAGT TGAATGCTAT TTTAAGTAGC AAAGTAGATG TGGGACGACG CATTGCTCAG	6480
GCCTACCAAG CGGATGATAA AGAAAGTTTA CAACAAATCG CCAGACAAGA ATTACCAGAA	6540
CTTAGAAGCC AAATTGAAGA CTTCCATGCC CTCTTTAGCC ACCAATGGCT GAAAGAAAC	6600
AAGGTCTTTG GTTTGGATAC AGTTGACATC CGTATGGGCG GACTCTTGCA ACGCATCAAA	6660
CGAGCAGAAA GCCGTATCGA GGTTTATCTG GCTGGTCAGC TTGACCGCAT CGACGAGCTG	6720
GAAGTTGAAA TCCTACCATT TACTGACTTC TACGCAGACA AGGATTTTCG AGCAACTACA	6780
GCCAACCAGT GGCATACCAT TCGACAGCG TCGACGATTT ATACGACTTA ATATTCTTCG	6840
AAAATCTCTT CAAACCACGT CAGCTTCCAT CTGCAACCTC AAAACAGTGT TTTGAGCAAC	6900
CTGCAGCTAG CTTCCCTAGT TGCTCTTTGA TTTTCATTGA GTATAAAAAC AAGAACACCT	6960
TGCTTGGCGC AGGGTGTTC GCGTGAAACA GAAGAATTAT CTGGTTTCAA ATGCTACAGT	7020
TAGACAACT TATGATAAAA TAGCAGAAAG TGAATGTTTC CTAAGAGCAA TTGGAGGTAT	7080
TATGCTACAC TTTAAATTAG TAAAACAAGA AATAGAAGCT GAAAAGCCAG CATCTGTAGA	7140
AGCTTGATC ATTTCCGTCA AATTTAAAAA AGGTTGCTAC CGACATATAT AGATTCCAAA	7200
AACAAAAACG TTAGCGGAAC TAGCAGATGT GATTTTATGG AGTTTGTATT TTGCAAATGA	7260
TCATGCTCAC GCATTTTCA TGGATAATGT TGAGTGGAGT CATGCAGATT CTTACTTTCG	7320
TAGCTTTGTT AGTGACGATG TTGAAGAACG TTACACAGAA AATGTCTATC TGGATAGCCT	7380

416

AAGTGTCAAA CAAAAATTTA AGTTTATTTT CGACTTCGGT GATGAATGGC GTTTTGAATG	7440
CCAAGTGCTG AGAGAAATCG AGACAGAGGA CGAAGAAGCT TATCTCGTAC GTTCGGTTGG	7500
AACGTCGCCA GAACAATATC CAGATTATGA TGGTTTGTAC TATGAAGAAT GGTAATAATTG	7560
AAATCAGTCT GTGTAGGCTT AGTATTTCAA TAGACTTCCT GCAAAACTAG AATCCTAGTT	7620
CATGATTGAT AATACCAGCA ATCAAATTCA TTCGTAATCC GAAGCGTTTA CGATGATTTT	7680
GATAGGTTGT TGAAAACAT TTAACGTTT TTACTTTGGC AAAGATGTTT TCAACCTTGC	7740
TTCTCTCCTT AGATAGCGCA TGGTTATAGG CTTTATCTTC AGCTGTTAGT GGCTTGAGTT	7800
TGCTGGATTT ACGTGAAGTT TGTGCTTGAG GACATATCTT CATGAGCCCT TGATAACCAC	7860
TGTCAGCCAA GATTTTACCA GCTTGTCCGA TATTTCTGCA ACTCATTTTG AACAACTTCA	7920
TATCATGACA ATAGTTCACA GTGATATCCA AAGAAACAAT TCTCCCTTGA CTTGTGACAA	7980
TCGCTTGAGC CTTCATAGCG TGAAATTTCT TTTTACCAGA ATCATTCGCT AATTCTTTTT	8040
TTAGGGCGAT TGATTTTAC TTCCGTCGCA TCAATCATTA CCGTGTCTC AGAACTAAGA	8100
GGAGTTCTTG AAATCGTAAC ACCACTTTGA ACAAGAGTTA CTTCAACCCA TTGGCTCCGA	8160
CGGATTAAGT TGCTTTCGTG AATACCAAAA TCAGCCGCAA TTTCTTCATA AGTGCGGTAT	8220
TCTAGGCTTA ATTTAGGTTT TCGTCCACCT TTTGCGTGT TAAGTTGATA AGCTGTTTTT	8280
AATACAGCTA ACATCTCTT AAAAGTCGTG CGCTGAACAC CAACAAGACG CTTAAATCGT	8340
GTATCAGTTA ATTGTTTACT TGCTTCATAA TTTGCGAGG AGTCTATTGA CTCTTTGGTA	8400
GGTGTCAATG TTTTTCAT CTATCCCGAG AATTATTTT CCGCCATTTG TATTTGCAAA	8460
TGCTGAGTAG GTTTCCCAGA AAGACTCTGG AAGATTGTTT TTAGCTTTTT TGTATTCTAA	8520
ATCAACCCCT TCAAATTTTA AGTCCATATT TTTCTTTAC ATCTGTTTTT TGTGGTTCTG	8580
GTATTTGTTC AAGTTGAGTG ATAATATAGC GAATTGAATT TCGAGAGTTT TTA CT CAGTT	8640
AATTTCTTTT TTAACCC	8657

(2) INFORMATION FOR SEQ ID NO: 45:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11384 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

TCTATTTTGG GTATAGACTT ACCTATAAAG AAAAATATCT ATACACTGCC TTACTAGCTA	60
TACTGAACGA GTCAACAAAA ACGATATATA TTGATGATAT AAATACAGCA AGATTTT TTA	120

417

ACTTCTTTGG CAATGATATT CCTAATTCGT CTTTAAAAAA AATTGACTAT ATCGCACCTT	180
CAGAAATTGT TTCATTTAGT ACGTACGTTC GACAACGTTC TAAAGTAATT CCTAAAATTT	240
TGGAACATAT ATTAAATCA AGTTTTTTAT TAGAGAATAT AGATGTTTCT GGTACACTG	300
TAAATATTTT AGAAGATCAA TTAACAAAAC ATAGAACAAT CAAAATTAGT AAAAATAAC	360
TGTTGATCT CATGTATAAA TACCTAACAA AACCACGCGC CTTGCCTGCT GATGGAAAGA	420
AAGGTACAAA TACATGAATA TCAAAGAAAA AATCAAAAAG AATGGCCAAA GAGTTTATTA	480
TGCTAGTGT TATCTAGGCG TTGACCAACT AACGGGCAAA AAAGCCCGTA CAACTGTTAC	540
AGCAACCACT AAAAAGGCGC TTAAAGTAAA AGCGCGTGAT GCGATCAATA CTTTGTCTGC	600
TAATGGCTAT ACAGTTAAAG ACAAGCCGAC AATTACAACA TATAATGAGC TTGTAAAAGT	660
TTGGTGGGAT AGTTACAAGA ATACAGTTAA GCCAAATACT CGCCAATCCA TGGAGGGATT	720
GGTTAGAGTG CATTTATTGC CTGTATTTGG CGATTACAAG CTATCTAAAC TTACTACGCC	780
TATTCTTCAA CAGCAAGTAA ACAAATGGGC TGACAAGGCA AATAAAGGCG AAAAAGGGGC	840
ATTTGCTAAC TACTCTTTGC TCCATAACAT GAATAAGCGT ATTTTGAAAT ATGGCGTAGC	900
TATCCAGGTA ATACAATACA ACCCAGCTAA TGATGTCATC GTTCCACGCA AACAGCAAAA	960
AGAAAAGGCT GCTGTCAAAT ACTTAGACAA CAAAGAATTA AAACAGTTTC TTGATTATTT	1020
AGATGCTCTG GATCAATCAA ATTATGAGAA CTTATTTGAT GTTGTCTGT ATAAGACTTT	1080
ATTGGCCACT GGTGCGCGTA TTAGTGAGGC TCTGGCTCTT GAATGGTCTG ATATTGACCT	1140
AGAAAGCGGT GTTATCAGCA TCAATAAGAC ACTAAACCGC TATCAGGAAA TAAACTCACC	1200
TAAATCAAGC GCTGGTTATC GTGATATACC AATAGACAAA GCCACATTAC TTTTACTGAA	1260
ACAATACAAA AACCGTCAAC AAATTCAGTC TTGGAAATTA GGCCGATCTG AAACAGTTGT	1320
ATTCTCTGTA TTTACGGAGA AATATGCTTA TGCTTGTAAC TTACGCAAAC GCCTAAATAA	1380
GCATTTTGAT GCTGCTGGAG TAACTAACGT ATCATTTCAT GGTTTCCGCC ATACACATAC	1440
TACTATGATG CTCTATGCTC AGGTTAGCCC GAAAGATGTT CAGTATAGAT TAGGCCACTC	1500
TAATTTAATG ATCACTGAAA ATACTTACTG GCATACTAAC CAAGAGAATG CAAAAAAGC	1560
CGTCTCAAAT TATGAAACAG CTATCAACAA TTTATAAAAA ATAAGGGTGA CCCATTTCCG	1620
GGCTACCCTC TTACTATACC AAAAATTAGT AGGGGTAGTA AAAAGGGTAT TAAATTATAA	1680
AAAGCACTAA GGGAAAGCGC CCCAAAGTGC TTATTTCAAA GGCTTTATAG CCTATAATCA	1740
CATAAAGAGA TTATTTTTTA AGTTGTAGA ATGATTTCAA TCCACGATAT TCAGCTACTT	1800
CACCAAGTTG GTCTTCGATA CGAAGCAATT GGTGTATTT AGCGATGCGG TCTGTACGTG	1860

418						
AAAGTGAACC	AGTCTTGATT	TGTCCTGCGT	TAGTTGCAAC	TGCAATATCA	GCGATTGTTG	1920
AATCTTCAGT	TTCACCTGAA	CGGTGTGATA	CAACAGCAGT	GTAACCAGCT	TCTTTAGCCA	1980
TTTCGATAGC	TTCAAAAGTT	TCAGTAAGAG	TACCGATTTG	GTTAACTTTG	ATAAGGATTG	2040
AGTTAGCAGC	ACCTTCTTGG	ATACCACGTG	CAAGGTAGTC	AGTGTTTGTT	ACGAAGAAGT	2100
CGTCACCAAC	AAGTTGTACT	TTCTTACCAA	GACGTTCAGT	AAGAGCTTTC	CAACCATCCC	2160
AGTCGTTTTC	ATCCATACCA	TCTTCAATAG	TGATGATTGG	GTATTTGTTA	ACCAATTCCTT	2220
CAAGGTAGTC	GATTTGTTCT	GCAGATGTAC	GAACAGCAGC	ACCTTCACCT	TCAAATTTAG	2280
TGTAGTCGTA	AACTTTACGT	TCTTTATCGT	AGAATTCTGA	TGAAGCACAG	TCAAATCCGA	2340
TAAATACGTC	TTTACCTGGT	ACATATCCAG	CAGCTTCAAT	CGCAGCAAGG	ATAGTTTCAA	2400
CACCATCTTC	AGTTCCTTCG	AAACGAGGAG	CGAATCCACC	TTCGTCACCT	ACGGCAGTTT	2460
CCAAACCACG	TGATTTAAGG	ATTTTCTTAA	GAGCGTGGAA	GATTTCAGCA	CCGTAACGAA	2520
GGGCTTCTTT	AAATGTTGGC	GCACCAACTG	GCAAGATCAT	GAACTCTTGG	AAAGCGATTG	2580
GAGCGTCAGA	GTGAGAACCA	CCGTTGATGA	TGTTTCATCAT	TGGAGTTGGA	AGAACTTTAG	2640
TGTTGAATCC	ACCAAGATAG	CTGTAAAGTG	GGATTTCAAG	GTAGTCAGCA	GCAGCACGAG	2700
CTACAGCGAT	AGACACACCG	AGGATTGCAT	TCGCACCCAA	TTTACCTTTG	TTAGGAGTAC	2760
CGTCAAGTGC	GATCATAGCA	CGGTCAATAG	CTTGTTGATC	ACGTACATCG	TAGCCAATGA	2820
TAGCTTCAGC	AATGATGTTG	TTTACGTTGT	CAACAGCTTT	TTGTGTACCA	AGACCACCGT	2880
AACGAGATTT	GTCACCGTCG	CGAAGTTCAA	CTGCTTCGTG	TTCACCAGTA	GAAGCTCCTG	2940
ATGGAACCAT	ACCACGTCCG	AAAGCACCTG	ATTCAGTGTA	AACTTCTACT	TCAAGTGTTG	3000
GGTTACCGCG	TGAGTCTAGG	ACTTCGCGAG	CGTAAACATC	AGTAATAATT	GACATTTTTT	3060
ACTCTCCTTA	TGAGTTAAAT	TTTTTACACC	TCTATAATAC	CTTAAAACCC	CTCCTTTTTTC	3120
AAGAAAAAAC	GTTATCTTTG	TGCAACTTTT	CCTTAACTTT	ATAAAGTAAT	CGCTTTCCTT	3180
TGTCTGTTTT	ATTCTAACTT	TTATGATATA	CTGTTTTCAT	GACAGATTTA	TCAAAACAAT	3240
TACTTGAAAA	AGCTCATGGT	GGGTTAAAAA	TAAATCCGGA	TGAGCAAAGA	CGCTATCTTG	3300
GTACTTTTGA	GGAAGAGT	CTTGGATATG	TAGATATTGA	CACAGCAAAT	AGCCCTCAGT	3360
TAGAAAAAGG	CTTTTTATTT	ATTTTAGAAA	ACCTTCAGGA	AAAAGCAGAG	CCACTATTTG	3420
TGAAGATTTT	ACCAACTATC	GAATTTGATA	AGCAAGTTTT	CTACTTAAAA	GAAGCAAAAG	3480
AAACTGATAG	TCAAGCCACC	ATAGTATCTG	AAGAGCATAT	TACTTCTCCT	TTTGGCCTGG	3540
TTATTCATAG	CAATGCACCA	GTTCAAGTAG	AAGAAAAAGA	CCTTCGACTT	GCTTTTCCAA	3600
AACTTTGGGA	AGTTAAAAAG	GAAGAACCAG	CCAAAACATC	CTTATGGAAG	AAATGGTTTA	3660

GCTAAATCTT GCACATATTT AATAAGTGCC CAATATTGGC AGCCGTGCGC TCCAGATAGA	3720
AACTGGCATT TTTCAAAC TA TCTTCTAAAG GTTCAC TTTT CTCCAAAATA GAAAAGACAG	3780
CTTGATATTT TTTCAAATGGT AGGGGAGGTA AATCTTCAGC AAGACTACCG CAAATAGCAA	3840
TAACAGGAAC TCCAACAGGG GTTCTTTTGTG CAACACCTAT AGGCGCTTTC CCAGCAAAGC	3900
TTTGACTATC AAGTCTTCCT TCTCCAACAA CAACCAAGTC AGCATCTGAA ACTTTCTTAT	3960
CAAAGTTGAT TAAGTCCAAG CAGGTATCAA TTCCAGACAC GATACTTGCC TGAGCAAAGG	4020
CACACAAACC ACCAGCAAGG CCTCCACCTG CTCTGCTGCC TTAAATTTCT AATGTTGCAG	4080
GTGAGAATTT TTCATAAAAA TCTTGATCG CCTGATCTAC GACTGCAAAC ATAGTCGGAT	4140
GTAGACCTTT TTGATTGCCA AAAGTGTAAG TCGCACCTTG ATGACCACAT AAGGGACTCA	4200
CGACATCTGC TAAAAATGA ATTTGAACAC CTTCAGGAAT TTTATAGCAA TTTTCTGTG	4260
AAACAGAAGC TAAGTTTAAT AAGGATTGAC CGGAAGCAGG CAAGACATTT CCATCCCTAT	4320
CATAAAATG ATAACCTAAA CCAGCAGCAA TCCCCAGTCC TCCATCATTA CTGGCCGTGC	4380
CACCAACACC GATATAAATA TCTTTAATCC CTTTAGAGAT GAGATGAAGA ATCAACTCTC	4440
CAATACCACA AGTTTGGATT TGAAGTGGAT TTCGTTTCTC TAGCGGAATT TTTCCAAGAC	4500
CAACCAAGTC AGTACTTCA AATAGTGCCA GTTCCCCTTT TTGAAAATAG CGCATGGCTT	4560
CTTTTGTGCC AAAAGGGTCT GTCACCTGGA TCCATTTTTC TTTTAGGTCA AGAGAATGTC	4620
GGATAGCATC TACAGTACCT TCTCCCCAT CACCAACAGG GCAGAGGAGA CATCTACAT	4680
CTGCTATCGA TTGTTGGAAG CCTCTTTTTA TTGCTTCAGC TACCTGTTGA GCTGTCAAGC	4740
TTTCCTTAAA CGAATCCGGT GCAATTACAA TCTTCATATT TTCCCTCATT CTAAACAGTC	4800
AATCAAAGGG AGAACTTCTA AAAAATCCCT CTTGTCAACA TGATGTGGTA TTTCTTTTTT	4860
GAGCACTTCT TTGGCACAAA AGGCGATTCC TAACTTCGCC GACTTCAACA TTAATAGATT	4920
ATTAACCCCA TCACCGATTG CCACCGTTCT TTCTTTAGAA AGTTT TAGTT TCTTTCTCCA	4980
TTTTTCCAGA GTCTCTTTTT TGACCTGGGG ACTTATAATT TGTTCAACTA ATTTCTCTGT	5040
TAAAAGACCT TCTTTGACTT CAAGCTAGTT GGCAAGTAAA TAGGCAATAC CAAGGGATT	5100
TGCTAATCTC TCCAAC TATT GGTGTAAATC CACCAGACAC CAGACCAACT AGGATGCCAT	5160
TCTTTTGGAG AATAGAGATG AACTCTGGGA CATTTAGCGA TAGATGAATT GAGTTGAAGA	5220
CGTTATCAAA GACCAAAATA GGAAGACCTT CCAACAAGGA CACTCTTTTT CTTAACTGC	5280
TTTCAAAGAC CAACTCTCCT CGCATTGCTC GACTTGTAAT CTGCGAAATT TCCGCCTCAT	5340
GACCTGCCTC TCTCCCTAAA AGATCAATCA CTCTCTCTAG GATTAAGGTT CCATCTACAT	5400

420

CCAAAACACA CAAGCCTTTT ACTTGAGACA TCAGTTCTCC TCTCTAAACA GCCTAAAAAT	5460
CGTATGAAGT CATCATACGA TTTTATCTAT TAATTAACTA AACTATGGTA CAAGTCAAGG	5520
TATGACTTGC AGGCTGTATC CCATGAGAAG TCACTCTCCA TAGCTTGTTT TTGTAGGTTT	5580
CTCCAAATGT CTGGATGGTT TCTATACAAG TCCAATGCTG TTTGGAAAGT CCAATTTAAC	5640
CAATAAGGAG ATAGATTGTC AAAGCTAAAG CCAGTACCGC TTCCTTCGAT TGGATTGAAA	5700
GCGCGAAGT TATCTCGCAA GCCTCCAAC TCAATGGACCA ATGGCAAGGT TCCATAACGC	5760
ATAGCCATCA TTTGAGACAA GCCACACGGT TCAAAACGAC TTGGCATGAG GAAGAGGTCA	5820
CAAGCAGCGT AGATTTCCTG AGCAAGTTTG ACATCAAAAG TGATATTTGT TGATAGCTTG	5880
TCTGGGTAAA TCTGAGCAA CCATGAGAAA GCTCCTTCAA AGGCTGGATC GCCAGTCCCC	5940
AAAAGAACAA TCTGAACATC TTCTTGCAAG ATATGGTGAA GACTTTCGAC CACCACATCA	6000
AAACCTTTTT GACGTGTCAA ACGAGAAACA ATTCCCACCA GTGGAACGTC TGCTCTAACA	6060
GGCAAGCCAA CTCTTTCTTG CAATTTTGCC TTATTTTGG CTTTCCCAGA CAAATCTTCC	6120
TGATTGAAAT GATAGTCTAA AAGAGCATCC GTCTGAGGAT TATAAAGATC AGCATCAATC	6180
CCATTCACGA TACCAGATAC TTTACCAGAC TCCATTTTAA GAATCTGATC CAAATTACAT	6240
CCAAACTGAC TAGTCATAAT TTCATGAGCA TAGCTAGGTG AAACGGTTGA AACACGGTTC	6300
GCATAGAGAA TACCTGCCTT CATCCAGTTC AGACAGTTGT TCCATCGAAG GGTGCCATCA	6360
GCGTAACGTT CAAAGCCAAC TCCAAACAAA TCACCCAACA TTCCTTCTGA AAATTGTCCT	6420
TGGAATTCTA AATTATGAAT GGTTAAACT GTTTCAATGT CCTCATAGGC TTGAATCCAA	6480
CGGTATTTTT CCTTCAACAA GAAAGGAATC ATAGCTGTAT GGTAATCATG AACATGGAGA	6540
AGATCAGGAA TAAAGTCAAT CCTTCCATA GCCTCAATGG CAGCCAGTTG GAAAAAGGCA	6600
AAGCGTTCTC CGTCATCAA ATCACCGTAA ACATGACCAC GGAAGAAATA ATATTGATTG	6660
TCAATAAAGT AGAAGGTAC ACCATTTAAT ACTGTTTTCT TAATTCCACA ATACTGTCTG	6720
CGCCAACCAA CGCTCACCTC AAAATGAAGC ACATCTTCAA TCTGATTTCC AAATTTAGCC	6780
TCTACCATAT CATAGTAGGG TAAAATCACT GCAACTTCGT GCCCAGCTTT TACCAGTGAT	6840
TTTGGAAGAG CGCCAATGAC GTCTCCCAA CCACCTGTTT TTGAAAAGGG TGCACCTCT	6900
GCTGCTACAA ATAAAATTTT CATGAATGAA TATCCTCTGT TACTTTAGCA CCTTTCTTAA	6960
CCACAACGG ATGTTCTGCA GTTCCTCGAA TCACAACACC ATGCTCAACT TCAACCCCTT	7020
TGTCCAAGAT AGCATATTCG ACCTGAGCCC CTCTCTCAAT AACAAACGGA GGGGAAGAGCA	7080
GGCTATCTTT AACCAAGCTA TCCTTATGGA CATGAATATT ACGTGATAGA ACAGAATTAG	7140
CTACTTGACC TTCAATAATA CTACCAGAGG CAAACTGAGA AGTGCTTACC TTAGATGTAT	7200

421

TAGCATAGTA	AGTTGGCTCT	TCGTTTTTGA	CCTTTGTATA	AATCTTTTGG	TTTGGTGAGA	7260
AAAGAGAATA	GAATTTTGT	GATTCAAGCA	TATCGATATT	CGCTTGATAA	TAAGATTTAA	7320
CAGAGTGAAT	ATTGGCTAGA	TAGCCCGTGT	ACTCGTAGGC	GAAAGCTCCC	TCTTTTACAG	7380
CCAAATCCCG	TAAAACATAG	CGCAATTCT	CTGGATGTTT	TTTTTTAGCT	TCTTCTTCCA	7440
AGTGTTCAAT	CAACCAAGGT	GTATCAACGA	CAAAGATATC	TGTAGACATA	TTGAACGTTT	7500
CAGCTGTTGA	CTTGCTATCA	AAGAGTTTAT	GAGAAAGAAC	ATGGTCTGTT	TCATCTACAT	7560
CCAAGATTGC	ATTTACTTCT	GAAATATCTT	TCTTAGCTAG	TTTTTTATAA	ACTACAGTGA	7620
TAGGCTCTTT	TGTTGTACTA	TGTAGGTGGA	AAACTTGGTT	CAAATCAATG	TTAATAAGAA	7680
CATCGCAGTT	GAGGGCAACC	GTTTGGTTTG	AGCCAGAACG	TTTCAAATAA	GTAAGAAGCT	7740
GTTGGTAGTA	TTCTTTTCCA	ACTGTACTAC	TTTCTACACG	GGTATTGTAA	ATTCCTAGAT	7800
AGTAATGGCT	AAGAAGGGTT	GATAAGCCCC	ACTCGCGTCC	TGAACGAATA	TGGTCAAATA	7860
CTGAGCTGAT	ATTATCCTGC	TGGAATAATAC	CAAAGACACT	ACGAACACCT	GCATTAGCAA	7920
GGCTTGAAAG	TGGGAAGTCA	ATCAAACGAT	ATTTCCACCC	AAATGGCAAA	CTTGCTACTG	7980
GACGGTGGTC	CGTCAATGTC	GACATATTGT	GAAAACCAAC	TGTATTTCCT	AAAATGGCAG	8040
AATATTTATC	AATCTTCATC	TGTTGCTACC	CCCACTACTT	CATTATATCC	TACAACCTGT	8100
ACTTCATCTG	TTCCATCAAT	TTCGACACCG	TCAGAAATAA	TCGCACCTTC	ACCAATAATG	8160
GCACGTTTAA	TCTTAGCTCC	TTGACCAATG	ATAGCTCCAC	TCATGATAAC	TGAATCAAGG	8220
ACTTCCGCTC	CTTCGCGAAC	TTGCGCGCCT	GTTGAAAGGA	TAGAATGTTT	AACAGTTCCA	8280
TCAACGAAAC	ATCCGTCTAC	AACTAATGAG	TCTTCCACAT	GAGCATTTGC	CCCGAGGAAG	8340
TTTGGTGGTG	AAATCAAGTT	TCTTGAGTAA	ATCTTCCATT	GACGGTTACG	ACTATCCAAG	8400
GCATTTTCTG	GAGAAATATA	CTCCATGTTT	GCTTCCCAAA	GTGACTCAAT	AGTACCAACA	8460
TCTTTCCAAT	AACCACTAAA	TTCGTAAGCA	TAAACACTTT	CACCTGACTC	AAGGTAATTT	8520
GGAATGACAT	TTTTACCAAA	GTCTGACATG	CCAACCTTGC	TCTTTTCAGC	AGCGACTAAC	8580
ATATTACGAA	GGCGTTGCCA	ATCAAAAATG	TAGATTCCCA	TAGAAGCTTT	TGTAGATTTA	8640
GGTTGAGCTG	GTTTTTCTTC	AAATTCAACA	ATACGATTGT	TAGCATCTGT	GTTTCATGATA	8700
CCAAAACGGC	TTGCTTCTTT	AAGAGGGACG	TCTAAAACCT	CTACTGTCAA	GCTGGCATTAA	8760
TTATCCTTAT	GAGACTGGAG	CATATCATCA	TAGTCCATTT	TGTAGATGTG	ATCCCCAGAC	8820
AAAATCAAGA	CATACTCAGG	ATTGACACTG	TCGATATAGT	CGATATTTTG	GTAAATAGCG	8880
TGACTAGTCC	CCTCAAACCA	ACGATTTCCT	TCACTGTCAG	AATAAGGTTG	AAGAATAGAG	8940

422

ACACCTGAAT TAATACCGTC TAGTCCCCAG CTTGAACCAT TCCCAATATG GTTGTGAGA	9000
GCAAGTGGTT GATACTGTGT AACGACCCCA ACATTGTGAA TCCCTGAGTT GGCACAGTTT	9060
GATAGGGCAA AGTCAATGAT ACGGTAGCGC CCACCAAATT GCACAGCTGG TTTTGCGATG	9120
CTTTGAGTGA GTTTACCGAG ACGAGTTCCT TGCCCACCAG CAAGAATCAA AGCTAACATT	9180
TCATTTTTC TTTTCTACTC CTTTTTGGTT TTTATTTGTG ACGGTTTTAG TAGATTTCAA	9240
GCGACGTTTG ATTTTCCATA CACTTGCTCC CATAGCCGGT AGGGTAAAGG TTAAGGCTCTG	9300
CTCATAATCT TTCCATAGTC CTTCTTGCGT TTGAACAGTT TGATTATGTT CTTTCCAAAC	9360
GCCTCCCCAC TCTTCCAAC CAGTATTCCA TACTTCTTCG TAAATTCCCTG CAACGGGTAG	9420
TCCGATTGTA AAATCTTCC GCTCAACAGG TACCATATTA AAGATACAGA CTAACATTTT	9480
TCCCTTTTTC CCCTTACGAA TAAAGGAAAG AACACTCTGG TCTCGATTAT CCGCATCAAT	9540
GATTTCAATA CCATCATAGC TGGTATCAAT TTCCCACAGA CAGCGATGAT CTTTGTAATA	9600
CTGGTTTAGC TGAGAAGCGA AATACTTCAT CTTAGCATTC ATTGGGTCTT CTAGGTTAGA	9660
CCATTCCAAC TGTCTTCAG ATTTCCATTC TAGGAATTGA CCGTATTCGC TACCCATGAA	9720
GAGCAATTTT TACCAGGT GACAAATTTG GTACGTATAG AGATTGCGCA AGCCTGCGAA	9780
TTGATTGTAA CGATCTCCCC ACATCTTATG CATCATACTC TTCTTGCCAT GAACCACTTC	9840
ATCGTGCGAG AATGGCAAGA GATAATTCTC CTTGAAAACA TACATAAAGC TGAAAGTCAC	9900
CAGGTTAAAG TCATATTTAC GATAGATCGG ATCTTCTTCG TAGAAACGGA GGATATCAT	9960
CATCCAGCCC ATGTTCCATT TGTAGTCAA TCCTAGACCA CCAATCTCTT TCATTCCTGT	10020
AATCTTGATC GCAGACGAAC TTTCTTCTGC AATCATCATC ACATCTGGAT ATTCTAACTT	10080
AATAACCTCA TTCAAGCGCT GAAGGAAATA ATAACCTTCA TAGTTGAGAT TTCCGCCATC	10140
TTTATTAGGT GTCCATGGAG CATCATCATA GTCCAAATAG AGCATGTTGC TAACAGCATC	10200
CACACGAATA CCATCCAAAT GATAGACATC AATCCAATGC TTAATGCAAG AAATTAAGAA	10260
GGACTGGACT TCATTTTTTC CAAGGTCAA ATTAAGGGCA CCCCACCAT GGTATGAGC	10320
CTTATTATGG TCTTGGTATT CAAAAGTCGG TGTCCCATCA TAATAGGCTA AGGCATCATC	10380
GTGATGGTA AAGTGACTGG TACCCAGTCC ACAATAACCC CAATATTATG GGTATGACAC	10440
TCCTCGACAA AATCTTGAAA CTCCTCTGGT CGGCCATAAG CATGCTCTAA AGCGAAGTAA	10500
CCCATAAGCT GATACCCCA ACTCAAGCCC AAAGGATGGG ACATCAAGGG CATAAACTCA	10560
ATATGAGTAT AGTTCATTTC AACGAGATAA GGAATGAGTT CATCCTTGAG CTGGGCAAAA	10620
CTATAAGGAC TGCCATCAGA ATTTCTTTTC CATGATCCAG CGTGAACCTC ATAAATATTG	10680
ACAGGACGCT CTTCAAAGCC CCAACGTTTT CTTCTGCGCA GCCAAAGTCC ATCCTTCCAT	10740

423

TTCTTCTCAG GAAGCTCTGT TACGATTGCC CCTGTTCCCTG GACGAGCCTC ATACCTGACA	10800
GCAAAAGGGT CAATCTTCAT CAGTTGATGA CCATTTTGAC GTGTGACATG ATATTTGTAA	10860
ATATGCCCTT CTTGAGCCAT ATTGGTAAAG ACTTCCCAGA CCCCAAAATC ATTTCTTACC	10920
ATTGGAATCT GATTTTCAAT CCAGTTGGTA AAATCACCAA CCAAGTGAAC AGCCTGAGCA	10980
TTAGGTGCCC AAACACGGAA GGTATAGCCA TGCTCTCCAT TTAGTTCTTC CCTATGTGCT	11040
CCTAGATAAT GTTGGAGATA AAAATTTTCA CCCGTCATAA AGGTTTAA TGCTTCTCTA	11100
TTATCCATAT ACTCCCCTTC TCCTGTAAGC GTTTTCTATG TTTTATTAT ACTACCTTTT	11160
TAGAGAAGAT TCAAGTAAAT TACTATACTT CTTTAATTAT TTTGAAAATC TACAACAAGT	11220
TCACTTACTC GTTCAATTGT AAATCAATAT TTTTCAAAA AATTGCGAAA ACGCCTTCT	11280
TTTTCTACTA TAGTGAAATG AAATAAAACA TGCGCAAATC GATTAAGGAA TTTAATCTAA	11340
TTTCTAACAA TGTCTTAGAA ATCAAAGTGT ACTATTTTAA CTCC	11384

(2) INFORMATION FOR SEQ ID NO: 46:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7577 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

TGTTGATTG TTAGTAGACG TTGACCAACG TCCTTCGGCT GGAAAAGGAA TTCTCCTTAG	60
TTTCCAACAC GTTTTCGCCA TGTTTGGTGC GACCATCTTG GTACCATTGA TTTTGGGAAT	120
GCCTGTATCT GTTGCCCTTT TTGCTTCAGG TGTTGGAACA CTCATCTACA TGATTGCTAC	180
TGGTTTAA GTTCCAGTTT ATCTAGGTTT TTCATTTGCC TTTATCACAG CTATGCTACT	240
GGCTATGAAA GAAATGGGGG GGGATGTATC TGCTGCCCAA ACAGGGGTTA TCTTGACTGG	300
TTTGGTCTAT GTCCTTGTTG CTACCAGCAT CCGATTTGTA GGAACAAAAT GGATTGATAA	360
ACTCTTGCCA CCAATCATTA TCGGTCCTAT GATCATCGTT ATCGGTCTTG GACTTGACAG	420
TTACAGTGTT ACCAATGCAG GTCTTGTAGC AGACGGAAAT TGGAAAAATG CTCTGGTAGC	480
CGTTGTTACT TTCCTAATTG CTGCCTTTAT CAATACAAA GGAAAAGGCT TCCTACGAAT	540
CATTCCATTC CTCTTTGCCA TTATCGGTGG TTACCTTTTC GCACTAACTC TTGGCTTGGT	600
TGACTTTACA CCAGTTCTTA AAGCCAACTG GTTCGAAAT CCTGGTTTCT ACTTGCCATT	660
TAGCACAGGT GGTGCCTTTA AAGAGTACAA TCTTTACTTT GTCCAGAAG CCATCGCTAT	720

424

CTTGCCAATC GCTATCGTAA CAATTTCTGA ACATATCGGA GACCATACTG TTTTGGGTCA	780
AATCTGTGGT CGTCAATTCT TAAAAGAACC AGGTCTTCAC CGTACTCTTC TTGGTGACGG	840
TATCGCAACT TCTGTTTCTG CCTTCCTTGG TGGACCAGCC AATACAACCTT ACGGAGAAAA	900
TACAGGGGTT ATCGGTATGA CTCGTATCGC TTCTGTCTCA GTTATCCGTA ACGCTGCCTT	960
CATCGCGATT GCCCTCAGCT TCCTTGGTAA ATTCACTGCC TTGATTTCAA CTATTCCTAAA	1020
CGCTGTACTT GGTGGTATGT CAATCCTTCT CTATGGGGTT ATCGCCAGCA ATGGTTTGAA	1080
AGTCTTGATT AAAGAACGTG TTGATTTTCG TCAAATGCGA AACCTCATCA TCGCAAGTGC	1140
TATGTTGGTT CTTGGACTTG GAGGAGCTAT CCTTAAACTT GGTCAGTTA CACTTTCAGG	1200
TACTGCCCTT TCAGCCATGA CAGGAATCAT CTTGAACCTG ATCTTGCCAT ACGAAAATAA	1260
AGACTAAGAG TCTAAATACA CCTAATCCAC TCAGACAGCT GAGTGGATTT TTCGTATACC	1320
ATAATAAAAG TGTCTTAACA AAATTATTAA AATCAAAAAA CGTATAATAT CAGATATTCT	1380
AAAACCTTGA TACTGTACGT TTTATCATAG AAATTTTAC TTTATTTTCT CATCAAATGA	1440
GATTTGCATC AATCTCTTGT CTTACTTGCG TTTCTTCTTC GCTTTCTTCA TTTTGTTAGC	1500
CATACGTTTC ATGGACTGTT TCATGGCAA TACCAATTTT TACCTTTCA AACCGCCACC	1560
AAACATCTGG CTCATATCTG GCATTCCTGC TCCTCCGAGA GCTGATAAGT CAGGCATACC	1620
GCCTTGTCCTT ATCATTCCTT CAAGGGCAGA CATATCCATT CCTCCCATAT TTGGCATATT	1680
TTTAGGAAGG TTATTTGGAT TAATCCCCAT TTGCTTCATC ATTTTATTCA TATCCCCAGA	1740
CATAACACCC TGCATGAGCT GTTTAGCCTG GTTAAAGTCC TTGATGAATT TATTGACTTC	1800
GACGAATGTA TTTCCAGAAC CAGCAGCAAT ACGACGGCGA CGGCTTGGAT TTAACAAATC	1860
TGGGTTTTCA CGCTCTTCAG GTGTCATCGA AGACACAATG GCACGTTTAC GAGCAATCTG	1920
GCGTTCATCC ACCTTCATGT TTTGAAGGGC TGGATTGTTG GCCATACCTG GAATCATCTT	1980
GAGCAAGTCT TCCATCGGCC CCATATTTTG CACCTGATCT AATTGATCGA TGAAATCATT	2040
AAAATCAAAG GTGTTTTTCG GCATCTTCTC AGCCATTTCA AGGGCTTTTT GTTCATCGTA	2100
TTCTTGAGAA GCTTCTCAA TCAAAGTGAG CATATCCCC ATACCAAGGA TACGGCTAGA	2160
CATGCGGTCT GGGTGGAAGG TTTCAATGTC CGTAATCTTT TCACCTGTAC CAGTGAACCTT	2220
GATTGGTTTT CCAGTAATGT GACGAACAGA CAGAGCAGCA CCACCACGAG TATCGCCATC	2280
AATCTTGATA AGGATGACCC CAGTCACTTC CAACTGAGCA TTAAACTCAC GCGCAACATT	2340
GGCTGCTTCC TGACCAATCA TAGCATCAAC GACAAGCAAG ATTTCAATTG GTTGAGCCAA	2400
TGCTTTCACA TCACGAAGCT CATTCATGAG GAGCTCATCA ATCTGCAAAC GACCCGCAGT	2460
ATCAATCAAG ACATAGTCGT TATGATTAGT TTGGGCTTGC TCCAAACCTT GACGTACAAT	2520

425

CTCAACAGCT	GGTACTTCTG	TTCCAAGTGC	AAAGACAGGC	ACATCAATCT	GTGTGCCAA	2580
GGTCTTAAGC	TGGTCAATGG	CAGCTGGACG	ATAAATATCC	GCCGCAATCA	TCAAAGGACG	2640
AGCATTTTCT	TCTTCTTGA	GTTTGTGGC	CAATTTACCA	GCAAAGGTG	TTTACCAGC	2700
CCCTTGTA	CCAACCATCA	TGATGATGGT	TGGAATCTTA	GGTGACTTGA	TAATTTCTGC	2760
CGTATCAGAA	CCTAAACGG	CTGTCAATTC	CTCATCAACG	ATTTTAATAA	TCTGTTGCGC	2820
AGGATTAAGT	GTATCAATGA	CCTCATGCCC	GACTGCACGC	TCACGAACTT	TCTTGATAAA	2880
GTCCTTTACA	ACAGGCAAGG	CAACGTCGGC	CTCGAGCAAG	GCCAAGCGAA	TTTCTTTGGT	2940
TGCCTCTTGG	ACATCAGATT	CAGAGATTTT	TCCTTTTSTA	CGTAGATTTT	TAAAGACGTT	3000
CTGCAACGT	TCTGTTAAAC	TTTCAAATGC	CATTTTCTT	CCTCTTATTC	TCTATTATCA	3060
ATGCTTGTTA	AAATTTCTAT	CTGCTCCTGC	AGAAAGTCAT	CCTTGGGATA	GCGCTCCAAA	3120
ATCTGATCAA	AAATCTGACT	GCGGACAATA	TAGTCCGAGT	ACATGTGCAA	TTTCATCTCA	3180
TAATCTTCCA	GAATCTTTTC	TGTTGCTTG	ATATTGTCAT	AGACAGCCTG	ACGACTGACA	3240
CCGAACCTCT	CGGCAATTTC	AGCAAGGCTG	TAATCATCAG	CGTAGTAGAG	CTCGATATAA	3300
TTCATTTGCT	TATCTGTCAA	AAGCGCCGCA	TAAAATTCAA	AGAGCGCATT	CATACGATTG	3360
GTTTTTTCGA	TTTCCATAAC	TTTTATTATA	CCAAAAATTA	GCCTAATCTA	CCACACTAGG	3420
AAGCCGATCC	AAGAAGATAG	ATAGCTAAAT	TTGAAAAAGA	CATGAGCCTA	GCCCCAAGTA	3480
ATTTCCAATT	GATAGCTGGC	AAAGGGATGT	CCCTCTTGAT	TTTGTAGTTG	ATAATCTAGT	3540
TCAATCTTTT	GCCTATCAAC	TTGATAATGG	CTCGTTTGA	TGATAAACTC	CTGCATGCCC	3600
ATAGGTGTAG	GAATATAGGC	TAAACTATCG	CTATCCTTTA	GAAAGCGCAT	AATGGTCTTG	3660
GGATTAGAAA	ATCGGCTCAT	CACAAGTTCT	TGACCATGAA	ATTTAATCAC	TACTTTTTC	3720
TTTTCTCAT	TATAGAAAAG	CAGGTAGCTA	TAATCTCCTT	TTTCATGCAC	TTCCACATCA	3780
TAAAGCTGGT	CAATCACTTC	CAACTGCTCA	TCAAACGTAA	TCGTATTTTCG	CATCCGAATC	3840
TTACATCAG	GCCCTCTTTC	TTGTCTCTTG	TCCTACTATT	TTACCAAAAA	GAGCAGGATT	3900
TTGCTATAAT	GGTCATATGA	ACGAAAAAGT	ATTCCGTGAC	CCTGTTTACA	ACTACATCCA	3960
TGTCAATAAT	CAAATCATCT	ATGACTTGAT	TAATACAAAA	GAATTTTCAGC	GTTTGCGCCG	4020
GATCAAAACAA	CTGGGAACCT	CCAGTTATAC	CTTCCACGGT	GGAGAACACA	GTCGCTTCTC	4080
TCACTGTCTA	GGAGTCTATG	AAATTGCACG	ACGCATCACA	GAGATTTTCG	AAGAAAAATA	4140
TCCTGAGGAA	TGGAATCCTG	CCGAGTCTCT	CTTGACCATG	ACCGCTGCTC	TCCTACACGA	4200
CCTTGGGCAT	GGTGCCTACT	CCCATACTTT	TGAACATCTC	TTTGATACAG	ACCATGAAGC	4260

426

CATTACTCAG	GAGATTATTC	AAAATCCTGA	GACAGAGATT	CACCAAGTCC	TGCTACAAGT	4320
GGCACCTGAT	TTCCAGAAA	AGGTGGCCAG	TGTCATTGAC	CATACCTATC	CTAATAAGCA	4380
GGTCGTGCAG	CTCATTTCTA	GTCAGATTGA	CGCAGATCGC	ATGGACTATC	TCTTGCGCGA	4440
CTCCTATTTT	ACAGGAGCAT	CCTATGGGGA	ATTTGACCTG	ACTCGAATCC	TCCGAGTCAT	4500
TCGTCCTATC	GAAAATGGTA	TCGCCTTTCA	GCGCAATGGC	ATGCACGCCA	TCGAAGACTA	4560
CGTCCTCAGT	CGCTACCAGA	TGTACATGCA	GGTTTATTTT	CACCCCGCAA	CACGCGCCAT	4620
GGAAGTTCTC	CTACAGAATC	TTCTCAAACG	CGCCAAGGAA	CTCTATCCTG	AGGACAAGGA	4680
TTTCTTTGCC	CGAACTTCTC	CACACCTCCT	GCCTTTCTTC	GAAAAAAATG	TGACCTTGAC	4740
TGACTATCTG	GCTCTGGATG	ATGGCGTGAT	GAATACCTAC	TTCCAGCTTT	GGATGACCAG	4800
TCCTGACAAG	ATTCTTGCGA	ATTTATCGCA	TCGCTTTGTC	AACCGCAAGG	TCTTTAAATC	4860
CATTACCTTT	TCACAAGAGG	ACCAAGATCA	ACTTACTAGC	ATGAGAAAAT	TGGTTGAGGA	4920
TATCGGCTTT	GATCCCGACT	ACTACACTGC	CATTACATAAG	AACTTTGACC	TCCCTTATGA	4980
TATCTATCGT	CCCGAATCTG	AAAACCCACG	GACACAGATT	GAGATTTTAC	AAAAAAATGG	5040
AGAACTGGCC	GAAGTCTCTA	GCCTGTCTCC	TATCGTCCAA	TCCCTTGCTG	GCAGTCGCCA	5100
CGGAGATAAT	CGCTTTTAT	TTCCAAAAGA	AATGTTGGAC	CAAAACAGCA	TCTTTGCAAG	5160
CATTACCCAG	CAATTTTAC	ACTTGATTGA	GAACGATCAT	TTTACCCCAA	ATAAAAACTA	5220
GAAGAGGAAA	TTTATGAGTA	TTAAACTAAT	TGCCGTTGAT	ATCGACGGAA	CCCTTGTCAA	5280
CAGCCAAAAG	GAAATCACTC	CTGAAGTTTT	TTCTGCCATC	CAAGATGCCA	AAGAAGCTGG	5340
TGTCAAAGTC	GTGATTGCAA	CTGGCCGCCC	TATCGCAGGC	GTTGCCAAAC	TTCTAGACGA	5400
CTTGCAAGTG	AGAGACGAGG	GGGACTATGT	GGTAACCTTC	AACGGTGCCC	TTGTCCAAGA	5460
AACTGCTACA	GGACATGAGA	TTATCAGCGA	ATCCTTGACT	TATGAGGATT	ATCTAGATAT	5520
GGAAATCCCTC	AGTCGCAAGC	TCGGTGTCCA	CATGCATGCC	ATTACCAAGG	ACGGTATCTA	5580
TACTGCAAAT	CGCAATATCG	GAAAATACAC	TGTACACGAA	TCAACCCTCG	TCAGCATGCC	5640
TATCTTCTAC	CGTACCCCTG	AAGAAATGGC	TGGCAAAGAA	ATTGTTAAAT	GTATGTTTAT	5700
CGATGAACCA	GAAATTCTCG	ATGCTGCGAT	TGAAAAAATT	CCAGCAGAAT	TTTACGAGCG	5760
CTACTCCATC	AACAAATCTG	CTCCTTTCTA	CCTCGAACTC	CTTAAAAAGA	ATGTAGACAA	5820
GGGTTTCAGCC	ATTACTCACT	TGGCTGAAAA	ACTCGGATTG	ACCAAAGATG	AAACCATGGC	5880
AATCGGTGAT	GAAGAAAATG	ACCGTGCCAT	GCTGGAAGTC	GTTGGAACC	CCGTTGTCAT	5940
GGAAAATGGA	AATCCAGAAA	TCAAAAAAAT	CGCCAAATAC	ATCACCAAAA	CAAATGACGA	6000
ATCCGGCGTT	GCCCATGCCA	TCCGAACATG	GGTACTGTAA	AAGTATCAT	TTTCAATAAG	6060

427

AATTGATTAG CAATAAAATC CAATGAATTT TTTTAGCAAA CTATTTAATT TAAAAACAAA	6120
TAATCATAAT AGAGACACAA ATTCTGATTG TAACAATTTT TACCTAAACG AATTAGAATG	6180
TGGCCTTACT CCTGGGCAAC TCATACTCAT AGATTGGACT CAAAAACAG GGAGAAATTA	6240
TAATTTCCCA AGATATTTTA AATACTCTCT TCAAATTGAC CCTGAATCTA CACACAATCA	6300
ATTATACAAA TTAGGATACT TCACTAAAAA TAAGACTTTA TCATATCTTA CAGTAGTAGA	6360
ATTAAAACT ATATTATCTA AACATAATTT AGCTACTTCT GGAAAAAAG CAGAATTAAT	6420
TACAAGAATA ATTAATAATG TTAACATTGA CAATTTAGAT ATTCCGTTTC AATTTAACT	6480
AACAAAAGAA GCACAAAATC TTATTATCGA ACATAGTGAC TATATCAAAG CATACTATGA	6540
TAAAGACATA ACTATGGAAG ATTATTGTAA AGAAAAAAC AATATCTCTT TTAAAGCAAC	6600
TTTTGGTGAT ATAAATGGA GTCTCTTAAA TAAACAAGCT CATAGGAATA CTGTATCAGG	6660
AGATTTTGGA TGCTTATCTA ACACACGAAA GGCTCAGGGA AGACATTTGG AACAAGAAGG	6720
TAATATTAAA CATGCTTTAA TATATTACAT AGAATCTTTG ATAATTACTA TTTCAGGATT	6780
AGAAAACAAT TTTCAGCCA CTGATTATCC AGTATATTAT CCCGATTCGA TACCTGACTA	6840
CTCACTAAAA CATATTCAAA CATTAATGGA ATCATTATCT GATGACGATT ATGATTTTGC	6900
TTTTGATGAA GCATTATTTC GCTTCTCAAT TTTGAATGCA AATCATTTT TATCTAAGGA	6960
AGATATTGAC TATTTAAGAG TTAATTTACC TCGTTCCACT GCTGAAGAAA TAAACAATTA	7020
CTTAAAGAAA TATGAATGTT ATAGTCCTTT AAATAATTTA GAACTTGACG ATTTTGAATA	7080
AATTGACTAT ACAAACATTT ATATACTCGA TATAGTCTCA ATTTTATCTG ATGATTGCCC	7140
AAATTTTCA ATAATAAAC GCATAATATT ATGGAGACAA TCCCCTATAT TATGCGTTCT	7200
TTTAATATCA AAGACTTTTT GACAACTTC TTTGATATCT AATTACATGC CCCCTGCAGG	7260
AATCGAACCT GCAACTACTC CTTAGGAGGG AGTTGTTATA TCCATTGAAC TAAGGGAGCT	7320
AGATAAAAC TCTGCTAAAT GAGCAGAGTT TTTTAGTCGA ATTAACGACG GATTCTTTG	7380
ATACGAGCTG CTTTACCTTG AAGAGCACGC AAGTAGTACA ATTTGCGACG ACGTACTTTA	7440
CCGTAAACGAA CAACTTCGAT TTTTCAACA CGTGGAGTGT GGATTGGGAA GATACGCTCA	7500
ACACCTACAC CGTTAGAGAT TTTACGAACT GTGTAGTTT CTGAGATTCC AGCACCTTTA	7560
CGTGCGATAA CAACACG	7577

(2) INFORMATION FOR SEQ ID NO: 47:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4945 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

428

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

CCTCGCTGAT GATTGGTGCT GTTTTATTTG CTGGTCCAGC CTTGGCTGAA GAAACTGCAG	60
TTCTTGAAAA TAGCGGAnCT AATACAGAGC TTGTTTCAGG AGAGAGTGAG CATTTCACCA	120
ATGAAGCTGA TAAGCAGAAT GAAGGGGAAC ATGCTAGAGA AAACAAGCTA GAAAAGGCAG	180
AAGGAGTAGC GATAGCATCT GAAACTGCTT CGCCAGCAAG CAATGAAGCT GCAACTACTG	240
AAACTGCAGA AGCAGCTAGC GCAGCTAAAC CAGAGGAAAA AGCAAGTGAG GTGGTTGCAG	300
AAACACCATC TGCAGAAGCA AAACCTAAGT CTGACAAGGA AACAGAAGCA AAGCCCGAAG	360
CAACTAACCA AGGGGATGAG TCTAAACCAG CAGCAGAAGC TAATAAGACT GAAAAAGAAG	420
TCCAGCCAGA TGTCCCTAAA AATACAGAAA AAACATTAAG ACCAAAGGAA ATCAAATTTA	480
ATTCTTGCGA AGAATTGTTA AAATGGGAAC CAGGTGCTCG TGAAGATGAT GCTATTAACC	540
GCGGATCTGT TGTCTCTGCT TCACGTCGGA CAGGTCATTT AGTCAATGAA AAAGCTAGCA	600
AGGAAGCAAA AGTTCAAGCC TTATCAAACA CCAATTCCTA AGCAAAAGAC CATGCTTCTG	660
TTGGTGAGGA AGAGTTCAAG GCCTATGCTT TTGACTATTG GCAATATCTA GATTCAATGG	720
TCTTCTGGGA AGGTCTCGTA CCAACTCCTG ACGTTATTGA TGCAGGTCAC CGTAACGGGG	780
TTCTGTGATA CGGTACACTC TTCTTCAACT GGTCTAATAG TATTGCAGAT CAAGAAAGAT	840
TTGCTGAAGC TTTGAAGCAA GACGCAGATG GTAGCTTCCC AATTGCCCCG AAATTGGTAG	900
ACATGGCCAA GTATTATGGC TATGATGGCT ATTTTCATCA CCAAGAAACA ACTGGAGATT	960
TGGTTAAACC TCTTGAGAGAA AAGATGCGCC AGTTTATGCT CTATAGCAAG GAATATGCTG	1020
CTAAGGTAAA CCATCCAATC AAGTATTCTT GGTACGATGC CATGACCTAT AACTATGGAC	1080
GTTATCATCA AGATGGTTTG GGAGAATACA ACTACCAATT CATGCAACCA GAAGGAGATA	1140
AGGTTCGGC AGATAACTTC TTTGCTAACT TTAAGTGGGA TAAGGCTAAA AATGATTACA	1200
CTATTGCAAC TGCCAACTGG ATTGGTCGTA ATCCTTATGA TGTATTTGCA GGTTTGGAAT	1260
TGCAACAGGG TGGTTCCTAC AAGACAAAGG TTAAGTGGA TGACATTTTA GACGAAAATG	1320
GGAAATTGCG CCTTCTCTT GGTTTATTTG CCCCAGATAC CATTACAAGT TTAGGAAAAA	1380
CTGGTGAAGA TTATCATAAA AATGAAGATA TCTTCTTTAC AGGTATATCA GGAGACCCTA	1440
CTGGCCAAAA ACCAGGTGAC AAAGATTGGT ATGGTATTGC TAACCTAGTT GCGGACCGTA	1500
CGCCAGCGGT AGGTAATACT TTTACTACTT CTTTAAATAC AGGTCATGGT AAAAAATGGT	1560
TCGTAGATGG TAAGGTTTCT AAGGATTCTG AGTGAATTA TCGTTCAGTA TCAGGTGTTC	1620

TTCCAACATG	GCGCTGGTGG	CAGACTTCAA	CAGGGGAAAA	ACTTCGTGCA	GAATATGATT	1680
TTACAGATGC	CTATAATGGC	GGAAATTCCC	TTAAATTCTC	TGGTGATGTA	GCCGGTAAGA	1740
CAGATCAGGA	TGTGAGACTT	TATTCTACTA	AGTTAGAAGT	AACTGAGAAG	ACCAAACCTC	1800
GTGTTGCCCC	CAAGGGAGGA	AAAGGTTCTA	AAGTTTATAT	GGCATTCTCT	ACAACTCCAG	1860
ACTACAAATT	CGATGATGCA	GATGCATGGA	AAGAGCTAAC	CCTTTCTGAC	AACTGGACAA	1920
ATGAAGAATT	TGATCTTAGC	TCACTAGCGG	GTAAAACCAT	CTATGCAGTC	AAACTATTTT	1980
TCGAGCATGA	AGGTGCTGTA	AAAGATTATC	AGTTTAACCT	AGGACAATTA	ACTATCTCGG	2040
ACAATCACCA	AGAGCCACAA	TCGCCGACAA	GCTTTTCTGT	AGTGAAACAA	TCTCTTAAAA	2100
ATGCCCAAGA	AGCGGAAGCA	GTTGTGCAAT	TTAAAGGCAA	CAAGGATGCA	GATTTCTATG	2160
AAGTTTATGA	AAAAGATGGA	GACAGCTGGA	AATTACTAAC	TGGCTCATCT	TCTACAACATA	2220
TTTATCTACC	AAAAGTTAGC	CGCTCAGCAA	GTGCTCAGGG	TACAACTCAA	GAAGTGAAGG	2280
TTGTAGCAGT	CGGTAAAAAT	GGAGTTCGTT	CAGAAGCTGC	AACCACAACC	TTTGATTGGG	2340
GTATGACTGT	AAAAGATACC	AGCCTACCAA	AACCACTAGC	TGAAAAATATC	GTTCCAGGTG	2400
CAACAGTTAT	TGATAGTACT	TTCCCTAAGA	CTGAAGGTGG	AGAAGGTATT	GAAGGTATGT	2460
TGAACGGTAC	CATTACTAGC	TTGTCAGATA	AATGGTCTTC	AGCTCAGTTG	AGTGGTAGTG	2520
TGGATATTCG	TTTGACCAAG	CCACGTACCG	TTGTTAGATG	GGTCATGGAT	CATGCAGGAG	2580
CTGGTGGTGA	GTCTGTTAAC	GATGGCTTGA	TGAACACTAA	AGACTTTGAC	CTTTATTATA	2640
AAGATGCAGA	TGGTGAGTGG	AAGCTAGCTA	AGGAAGTCCG	TGGTAACAAA	GCACACGTGA	2700
CAGATATCAC	TCTTGATAAA	CCAATCACTG	CTCAAGACTG	GCGCTTGAAT	GTTGTCACCT	2760
CTGACAATGG	AACTCCATGG	AAGGCTATTC	GTATCTATAA	CTGGAAAATG	TATGAAAAGC	2820
TTGATACTGA	GAGTGTCAAT	ATTCCGATGG	CCAAGGCTGC	AGCCCGTTCT	CTAGGCAATA	2880
ACAAGGTACA	AGTTGGCTTT	GCAGATGTAC	CGGCTGGAGC	AACTATTACC	GTTTATGATA	2940
ATCCAAATTC	TCAAACCTCCG	CTCGCAACCT	TGAAGAGCGA	AGTTGGAGGA	GACCTAGCAA	3000
GTGCACCATT	GGATTTGACA	AATCAATCTG	GTCTTCTTTA	TTATCGTACC	CAGTTGCCAG	3060
GCAAGGAAAT	TAGTAATGTC	CTAGCAGTTT	CCGTTCCAAA	AGATGACAGA	AGAATCAAGT	3120
CAGTCAGCCT	AGAAACAGGA	CCTAAGAAAA	CAAGCTACGC	CGAAGGGGAG	GATTTGGACC	3180
TTAGAGGTGG	TGTTCTTCGA	GTTCAGTATG	AAGGAGGAAC	TGAGGACGAA	CTCATTCGCC	3240
TAACTCACGC	AGGTGTATCA	GTATCAGGTT	TTGATACGCA	TCATAAGGGA	GAACAGAATC	3300
TTACTCTCCA	ATATTTGGGA	CAACCGGTAA	ATGCTAATTT	GTCAGTGACT	GTCAGTGACC	3360

430

AAGACGAAGC AAGTCCGAAA ACTATTTTGG GAATTGAAGT AAGTCAGGAA CCGAAAAAAG	3420
ATTACCTAGT TGGTGATAGC TTAGACTTGT CTGAAGGACG CTTTGCAGTG GCTTATAGCA	3480
ATGACACCAT GGAAGAACAT TCCTTTACTG ATGAGGGAGT TGAAATTTCT GGTTACGATG	3540
CTCAAAAGAC TGGTCGTCAA ACCTTGACGC TTCATTACCA AGGCCATGAA GTTAGCTTTG	3600
ATGTTTGGT ATCTCCAAAA GCAGCATTGA ACGATGAGTA CCTCAAACAA AAATTAGCAG	3660
AAGTTGAAGC TGCTAAGAAC AAGGTGGTCT ATAACTTTGC TTCATCAGAA GTAAAAGAAG	3720
CCTTCTTGAA AGCAATTGAA GCGGCCGAAC AAGTGTGAA AGACCATGAA ACTAGCACCC	3780
AAGATCAAGT CAATGACCGA CTTAATAAAT TGACAGAAGC TCATAAAGCT CTGAATGGTC	3840
AAGAGAAAT TACGGAAGAA AAGACAGAGC TTGATCGCTT AACAGGTGAG GTTCAAGAAC	3900
TCTTGGCTGC CAAACCAAAC CATCCTTCAG GTTCTGCCCT AGCTCCGCTT CTTGAGAAAA	3960
ACAAGGCCCTT GGTGAAAAA GTAGATTTGA GTCCAGAAGA GCTTACAACA GCGAAACAGA	4020
GTCTAAAGA TCTGGTTGCT TTATTGAAAG AAGACAAGCC AGCAGTCTTT TCTGATAGTA	4080
AAACAGGTGT TGAAGTACAC TTCTCAAATA AAGAGAAGAC TGTCAACAAG GGTTTGAAAG	4140
TAGAGCGTGT TCAAGCAAGT GCTGAAGAGA AGAAATACTT TGCTGGAGAA GATGCTCATG	4200
TCTTTGAAAT AGAAGGTTTG GATGAAAAAG GTCAAGATGT TGATCTCTCT TATGCTTCTA	4260
TTGTGAAAAT CCCAATTGAA AAAGATAAGA AAGTTAAGAA AGTATTTTTC TTACCTGAAG	4320
GCAAAGAGGC AGTAGAATTG GCTTTTGAAC AAACGGATAG TCATGTTATC TTTACAGCAC	4380
CTCACTTTAC TCATTATGCC TTTGTTTATG AATCTGCTGA AAAACCACAA CCTGCTAAAC	4440
CAGCACCACA AAACACAGTC CTTCACAAAAC CTACTTATCA ACCGACTTCT GATCAACAAA	4500
AGGCTCCTAA ATTGGAAGTT CAAGAGGAAA AGGTGCGCTT TCATCGTCAA GAGCATGAAA	4560
ATACTGAGAT GCTAGTTGGG GAACAACGAG TCATCATACA GGGACGAGAT GGAAGTTTAA	4620
GACATGTCTT TGAAGTTGAT GAAAACGGTC AGCGTCGTCT TCGTTCAACA GAAGTCATCC	4680
AAGAAGCGAT TCCAGAAATT GTTGAAATTG GAACAAAAGT AAAAACAGTA CCAGCAGTAG	4740
TAGCTACACA GAAAAACCA GCTCAAAATA CAGCAGTTAA ATCAGAAGAA GCAAGCAAAC	4800
AATTGCCAAA TACAGGAACA GCTGATGCTA ATGAAGCCCT AATAGCAGGC TTAGCCAGCC	4860
TTGGTCTTGC TAGTTTAGCC TTGACCTTGA GACGAAAAAG AGAAGATAAA GATTAAATAT	4920
CGAAAAATCT TGTGAAATCT TTCCG	4945

(2) INFORMATION FOR SEQ ID NO: 48:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25002 base pairs
 (B) TYPE: nucleic acid

431

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

GACAACTCAA GTAGCTTTTT CTTATTTTGA AAAAGGAGAT CAGAGTTTAA CTATGTCAGA	60
AAAATCACAA TGGGGGTCGA AACTTGGT TTATTCTAGCA TCTGCTGGCT GGCCATCGGG	120
CTTGGTCCG TTTGGAAGTT TCCCTACATG ACTGCTGCTA ATGGCGGTGG AGGCTTTTTA	180
CTAATCTTTC TCATTTCCAC TATTTTAATC GGTTCCTCCTC TCCTGCTGGC TGAGTTTGCC	240
CTTGCCCGTA GTGCTGGCGT TTCCGCTATC AAAACCTTTG GAAAACCTGGG CAAGAATAAC	300
AAGTACAAC TATCGGTTG GATTGGCGCC TTGCCCTCT TTATCCTCTT ATCTTTTAC	360
AGTGTATCG GAGGATGGAT TCTAGTCTAT CTAGGTATTG AGTTTGGGAA ATTGTTCCAA	420
CTTGGTGGAA CGGGTGATTA TGCTCAGTTA TTTACTTCAA TCATTTCAA TCCAGCCATT	480
GCCCTAGGAG CTCAAGCGGC CTTTATCCTA TTGAATATCT TCATTGTATC ACGTGGGGTT	540
CAAAAAGGGA TTGAAAGAGC TTCGAAAGTC ATGATGCCCC TGCTCTTTAT CGTCTTTGTT	600
TTTATCATCG GTCGCTCTCT CAGTTTGCCA AATGCCATGG AAGGGGTCTT TTA CTTCCTC	660
AAACCAGACT TTTCAAACT GACTAGCACT GGTCTCTCT ATGCTCTGGG ACAATCTTTC	720
TTTGCCCTCT CACTAGGGGT TACAGTCATG TTGACCTATG CTTCTTACTT AGACAAGAAA	780
ACCAATCTAG TCCAGTCAGG AATCTCCATC GTAGCCATGA ATATCTCGAT ATCCATCATG	840
GCAGTCTAG CCATTTTCCA AGCTCGATCC CCCTTCAATA TCCAGTCTGA AGGGGGACCC	900
AGCCTGCTCT TTATCGTCTT GCCTCAACTC TTTGACAAGA TGCCTTTTGG AACCATTTTC	960
TACGTCTCT TCCTCTTGCT CTTCTTTTT GCGACAGTCA CTTTTCTGT CGTGATGCTG	1020
GAAATCAATG TAGACAATAT CACCAACCAG GATAACAGCA AACGTGCCAA ATGGAGTGTT	1080
ATTTTAGGAA TTTTGACCTT TGTCTTTGGC ATTCCTTCAG CCCTATCTTA CGGTGTCATG	1140
GCGGATGTT ACATTTTGG TAAGACCTTC TTTGACGCTA TGGACTTCTT GGTTCCTCAAT	1200
CTCCTCATGC CATTGGAGC TCTCTACCTT TCACCTTTTA CAGGCTATAT CTTTAAAAAG	1260
GCTCTTGCAA TGGAGGAAC CCATCTCGAT GAAAGAGCAT GGAAACAAGG ACTGTTCCAA	1320
GTCTGGCTCT TCCTCTTCG TTTCTTCGTT TCGTCATTCC AATCATCATC ATTGTGGTCT	1380
TCATTGCCCC ATTTATGTAA TCAAAAAGGA CTTGAGTAGT GAACTCAGGC CTTTCTTTT	1440
TATGGATGGC TAACAATCAA TTCCAAACCT TGCCCTTCCA GAGTCCAAGC TTCAACATCA	1500
CTTGGTAGGA TAAAGTGGCT GCCTTTTGA ATTGGATAAT TTTTCCCGTC AACAGTTAGC	1560

432

TGACCTTGAC CAGCCAAGAC ACTCAATAAG CTGTAGTCAG CTGTCTTTTC AAAGTCAACT	1620
TTTCCAGTAA TTTCCCACTT GTAAACTGCG AAGAAATCAT TAGATACAAG GAGAGTGGAA	1680
CGCAAATCAT CTGCTTTAAC AGTTACAGGA CGGCTATTTG CTGGCTCACC AATGTTCAAG	1740
ACATCGATGG ATTTTTC AAG ATGAAGTTCA CGCAAGTTGC CTTTGTCTATC CTTGCGGTCA	1800
AAGTCATAGA CGCGATAGGT GGTATCGCTA GACTGCTGGG TTTCAAGGAT TAAGATACCC	1860
GCCCCGATAG CGTGCATAGT CCCGCTTGGT ACATAGAAGA AATCTCCAGC CTTAACAGGG	1920
ACTTTGGTCA ACAAGTCATC CCAGTTCTTG TCCTCGATTT GCTGGCGGAG TTCTTCTTTT	1980
GACTTGGCAT TGTGACCGTA GATAATCTCT GAACCTTCAT CCGCTGCGAT AATGTACCAG	2040
CATTCTGTTT TTCCGAGTTC GCCTTCATGC TCGAGTCCAT AAGCATCGTC TGGGTGAAC	2100
TGGACACTGA GCCAGTCGTT GGCATCGAGG ATCTTGGTCA AAAGTGGAAA TACAGGTTCT	2160
GGACGATTGC CAAATAATTC ACGGTGTTCC GCATACAAAG TAGCAAGATC TGTTCCTCG	2220
TAAAGACCAT TGGCAACTTT AGAGACTCCA TTTGGATGGG CTGAGATGGC CCAATATTCT	2280
CCGATTTTTT CACTTGGGAT GTCGTAGCCA AACTCATCAC GTAGCTTGGC TCCACCCAG	2340
ATTTTTTCTT GCATAACTGA TTGTAAAAAT AATGGTTCTG ACATGTCGAT CTCCTGTCTG	2400
ATTTTTCTCC CCTCATTATA GCAAAAAAAG AGTTCGAATT GAACTCTTTT TTACATCTTA	2460
TAAAGCAGGG AGAAGATTTT ATAAAAATAG TAAACAAATG TGCTCTACCC GATGCTTGCA	2520
CCATTGCTAT AAATGACATC CTTGTACCAA TAGAAGGACT TCTTCTTGCT ACGTTTGAGA	2580
GCTCCGTTTC CTACATTATC TCGATCTACA TAGATAAAGC CATAGCGCTT ATTCATTTCC	2640
CCTGTGCCAG CTGAAACCGG ATCGATACAG CCCCAAGTCG TATAACCAAG CAAGTCAACC	2700
CCGTCTTGGT AAATGGCATC TCGCATGGCC TTGATGTGGG CCTCTAAGTA AGTAATCCGA	2760
TAGTCATCTG CTACATAACC ATTCTCATCC GGTGTATCCA TAGCACCGAG TCCATTTTCT	2820
ACGATAATAC TAAACTAAAA TCAAAAAGCA TTATATAATA GTGATATGAA ATCAACTAAA	2880
GAAGAAATCC AAACCATCAA AACACTTTTA AAAGACTCTC GTACAGCTAA ATATCATATA	2940
CGCCTTCAAA TCGTCTTATA GTAAAATGAA ATAAGAACAG TACAAATCGA TCAGGACAGT	3000
CAAATCGATT TCTAACAATG TTTTAGAAGT AGGGGTGTAC TATTCTAGTT TCAATCTACT	3060
ATATTTCTGC TGATGGGCAA ATCTTATAAA GAGATTATAG AACTTTTATA GTAGTTTGAA	3120
ATAAGATGTG AACAACCTTA TCAGGAAAGT CAAATTAATT TATAGAAATA TTTTAGCAGC	3180
CAAGGTGTAC TGTATAGAT TCAATACACT ATAGACTGTA ATCAAACAAC GATTTGGCGA	3240
AATGTAAAAA AATATGAGGA GTTCGGACTC GACTCTCTCC TTCAAGAAAC ACGTGGTGGT	3300
CGTAACCATG CATATATGAC AGTTGAGGAA GAGAAAGCCT TTCTTGCCCG CCATTTGAAG	3360

433

GCTACAGAGG CAGGAGAATT TGTTACAATT GATGCCTTAT TTCAGGCTTA TAAAAAGGAG	3420
TTAGGTCGTT CCTACACACG TGATGCCTTC TATCAACTGT TGAAGCGCCA TGGTTGGCGA	3480
AATATTACGC CACGTCCAGA ACATCCTAAG AAAGCAGACG CTCAAACCAT TGTTCGTCT	3540
AAAAATAAAA TCTCAATCCA AGAAGGCAAG AAAGCGTTTT AAATATAGTA GACGTTTTTCG	3600
TAAGGTTTGC TTGATGTACC AAGCTGAAGC TGGTTTCGGT AGAATCAGTA AACTGGGATC	3660
TTGTTGGGCT CCAATAGGAG TAGGTCCACA TATCCATAGT CACTATATAC GAGAATTTTCG	3720
CTATTGTTAT GGAGCTGTTG ATGCCTATAC AGGCGAATCA TTTTCTTAA TAGCTGGTAG	3780
ATGTAATACT GAGTGGATGA ACGCCTTTTT AGAAGAGCTT TCACAAGCTT ATCCTTTTAC	3840
TCGTTATGGA CAATGCTATA TGGCATAAAT CAAGTACCTT AAAGATTCCG ACTAATATTG	3900
GTTTTGCATT TATTCCTCCA TACACACCAG AGATGAACCC CATTGAACAA GTGTGGAAAG	3960
AGATTCGTAA ACGTGGATT T AAGAATAAAG CCTTTCGAAT TTTGGAAGAT GTCATGAATC	4020
AACTCCAAGA TGTCAACAA GGATTGGAGA AGGAGGTGAT AAAGTCCATC GTTAATCGGA	4080
GATGGACTAG AATGCTTTTT GAAAGCAGAT GAGTATTATA TGCAATTTCT TTATATAAAA	4140
AGACCGGATT GCTCCGATCT TTCAATAGTT CATATTCTCA ATTTCTATTT TAAAAATAGC	4200
TAAGGTTAAC GTCAAATGAC TACGCGACCT ATTTCATACG ATAAAAATCA AGCACTAGAC	4260
CAGCAGGTCC TTGAACATAA AAGGACTCTG TTCCCAATC GGTTACAGTT GTCCCGTGA	4320
AAACCTTTAT ACCAAGCTCG TTCAACCGTT TGAGTTCTG GTCTACATCC TCAACCTCGA	4380
TATGAATAAT GATTCTTGAC TGAAAGTTTT CCAAAGGAAC CAAATGATTT TGTGACAACA	4440
TAAGGCAGTG ACTACCAATC GTAACTGAG CAAAACCATC ATTAGCATAA TCTGCCTTTT	4500
TATCCAAGAT ATGCTCCAAG TCAGCACAGA CTGGGGGAAC ATTTGAAACG ATAATATCTA	4560
ATTGATTTAA ATTCATTTAC TCTCCTCCAT AAAAAGACCG GATTGCTCCG ATCTTTTAAA	4620
GTTCTGCTCT ATGAAAATCA AAGAATAAAG TCTACAAGTT TCATATTTGA TTTTCGGCGA	4680
GAGGAATTAT TTAATTGCGC GTGATTGCAA TCCTTCTTCT TCCAAGAAGA GACGGAATGG	4740
TACGAGTTCT TCTGCTTCGT ATTTTTCCTT GAAGGCTTTG ATAGCTTCTT CTGAGTGAAG	4800
TTTTGGATCC AATTCAAGTA CTCTACTGG AAGTGGACGG TGTGAGTGA TGCGAGCATC	4860
GATGACAACA GTTTTACCTT CTTTGTTCAA TTTAACAGCT TCTGCAACAA CTGCATCGAT	4920
GTCTTCGATA CGGTCAACTG TGAATCCAAC AGCTCCTTGA GCTTCCGCAA TTTTAGCGTA	4980
GTCAGCGTTT GTGAAGCTA CACCAAACAA GTGTTTGTGTT GTATCTTCGT ATTTGTTCTT	5040
GATGAAGCCG TACTCAGCAT TTGAGAAGAC AAGGTTGATA ACTGGAAGGT CGTATTGAAC	5100

434

GTTTGTGATA	ACGTCTGGGT	AGCACATGTT	GAATGCTCCG	TCACCCATGA	TGTTCCATAC	5160
TTGGCGATCT	GGATTGTCTT	TCTTAGCAGC	GATACCACCA	GGAAGGGCAA	TACCCATTGT	5220
CGCAAAGAGT	GGAGATGTAC	GCCACATGTT	CTTAGGTGTC	ATGTGAAGGT	GACGAGTAGA	5280
TGTTTGAGTA	GTGTTACCTA	CGTCGATTGA	GATAGATAGC	TCTTGATCAG	CATGTTTGT	5340
GATTGCATTG	TAAACTTGAT	ACAATTGCAA	TTACCCCTCA	GTTTACCTT	CGAGTTTGT	5400
CATGTAATCA	CGCCAGTTTT	GGTTGTTCTT	AACGTTTGCA	CGCCACCATG	GAGTTGATTC	5460
AACTGGGTTT	ACTTTGTCAA	GGATAGCTTT	AGCTGCTTGA	CCAGCATCAC	CAAGGATTGA	5520
AGCGTCAAGG	GCATGACGTT	TACCAAGTTT	GTAAGGGTCG	ATATCGACTT	GGATGAATTT	5580
TTCAAGTGTTC	TTGAATGCTT	CGTAAACTTC	AGCAAATGGG	AAGTTTGAAC	CAAGGAAAAG	5640
AACTGTGTCT	GCTTCAAAGA	CCACTTCGTT	GGCTGGTTTC	CAACCAACAC	GGTAAGCAGA	5700
ACCTGTCAAA	CCTTCATAGT	TCCATTCGAA	AGCTTCAAAG	TTTTTACCAG	TTGTGATGAT	5760
TGGTGCTTTG	ATTTTACGTG	ACAATTGAGT	AATCACTTCA	CCAGCTTTAA	CACCACCAAA	5820
TCCAGCATAG	ATAACTGGGC	GTTCAGCATT	GTCAAGATT	TCAACAGCTT	TGTCGATTTT	5880
AACTTCGTTC	AAAGCAGGAG	CGATGAATGA	CGCTTCGTAT	GAACCTGAAC	CGTAGTATGA	5940
GTTTTTCATCG	ATTTCTTGGA	AACCGAAGTT	TACTGGAATT	TCAACAACAG	CTGGACCTTT	6000
TTTAGAAACT	GCAGCACGGC	AGGCTTCGTC	AATTACTTTT	GGCAATTGCT	CAGCGTAAGC	6060
TACACGTTTG	TTGTAAACAG	CGATACCGTT	GTACATTGGG	TTTTGGTTAA	GCTCTTGGA	6120
AGCATCCATG	TTCAATTCGT	TAAGTGACG	TGATCCAAGG	ATCGCTAGGA	ATGGAGTGTT	6180
ATCCATAGCT	GCATCGTAAA	CACCGTTAAT	CAAGTGAGTC	GCACCTGGAC	CACCTGAACC	6240
AACTGCAACC	CCGATTGAGC	CGCCGAATTT	AGCTTGCATA	ACCGCTGCAA	GAGCACCTGT	6300
CTCTTCGTGG	CGAACTTGTA	AGAAACGGAT	ATCTTTGTCT	TCAGCCAAAG	CGTCCATCAA	6360
TGAGCTGAGT	GTTCTTGATG	GGATACCGTA	GATTGTATCT	ACGCCCCATG	TTTTCAATAC	6420
GTTAAGCATT	GCTGCAGATG	CAGTAATTTT	CCCTTGAGTC	ATAATGATAA	CTCTCCTTCA	6480
ATTTTTTTAA	ACTTGAGAGAA	TACGATTACA	TAGAATTGGA	AACGTTCTCC	AAATTTTAC	6540
TATCCACTG	TATCATATTT	ATGCTGACTT	TTCTAAAAAT	CTGCTCAAAA	CTCTCTATTC	6600
TCTATTCTAA	TACAGTTTTG	AAAGTTCTGT	CATTTCTGTT	TTATAACAAA	GAAATCTAGT	6660
CATTACTTTT	AGTCTATTTT	ACTAAAATTT	AACAGAAGGG	AACTGGTCAG	AACAGATACA	6720
GAACTAAAGG	CCATGGCTAG	ACCTGCCAAT	TCTGGGTGTA	GAGCCAGTCC	AACACCTGAA	6780
AAGACTCCTG	CTGCAATCGG	AATTCCGACA	ACATTGTAGA	TAAAAGCCCA	GAAAAGATTG	6840
AGTAGAATTC	GATGAAAGGT	TTTCTTACTC	ATATCAAAGG	CACGAACCAC	TCCTAAAAGA	6900

435

TTATTGGTTG TCAACACCAA ATCTGCTGAC TCGATGGCGA TATCTGTTCC AGCTCCCATA	6960
GCAATCCCCA CATCTGCTAC ACTAAGGGCA GGAGCGTCAT TGATACCGTC CCCAACAAAG	7020
GCTACTTTCC CTGACTGTTG CAGTTTATGG ATTTTCATGGG CTTTTCCTTC TGGCAAGACG	7080
CCTGCAATGA CCTCTTCAAT TCCGATTTGA TCTGCAATAG CACGCGCCAC ACCAGCATTG	7140
TCTCCTGTCA GCATGACTGT TCGGAGACCA CGTTTTTTTA GCTGACTGAT GGCTAGCTTA	7200
GCATTTTCCT TAGGAATATC TTGCAAAGCA AGCAAGCCTT TGATTTCATT GTCAACAGCT	7260
AAGAACACAA CTGTCTTAGC TTCTTTTTCT AGTCTTCTA GTTTATCTTG ATAAGTATTA	7320
GAAATATCCA TGCCATCCAG CATTTTAGCA TTTCCAAGTA AAAGTTGTTT TCCATTGATT	7380
CGCCCTGAAA CACCTTTCCC GTGCAAGGAC TGAAAATTTT CAACAGTTTG AAAGTCAAGT	7440
CCAGCTTCAC TCGCTCGCTT AACGATAGCC TCAGCCAGTG GGTGTTGAGA AGCATCTTCC	7500
AAGGAGGCTG CCAACCCAAA CACTTCTACT TCGTCGCCGA TGACATCTGT TACCACAGGT	7560
TTCCCTTCCG TCAAAGTCCC GGTCTTATCA AAGACAAGGG TTTGAACTTT CTGGATTTC	7620
TGTAAGACAG TTCCATTTTT GAGGAGAACC CCCATCTTGG CACTACGTCC TGTCCCCACC	7680
ATAAGGGCTG TCGGTGTTGC AAGTCCCAAG GCACAAGGAC AGGCGATAAT CAAAACCGCC	7740
ACTCCGTAGA GAAGAGAGGA CACAAAGCTA GCTCCAAGCA CAACCACACT ATCCCTGAGC	7800
AAGACGAACC AAACCCAAAA GGTCTGATT CTTAAATGA CAACTACTGG GACAAAAATC	7860
CCTGAAATCT TATCCGTCAA GTCCTGAATC GGCACACGAC TTGTCTGAGC TTTCTTCACA	7920
AAATCCACAA TCTGAGCCAA AACAGTCTCT GAGCCAACCT TTTCTGCTCT AAAGACAAGC	7980
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CCTGTCAACA TCCAATCAT GAGAATCACA AGAGGCACAG TAAAGATACT AGTAATCCAA	8580
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436

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CAAAATCCTA	ATCCTACGGG	AACAAACCTT	GTCTTTGATA	TCTTGGACAA	GTAAATCCCG	9480
ACTTTGGTCT	AGAGTTAAAA	GGGCTGAATA	AACAAAGGAC	TTGCCTTCTT	TTTTCCGAGT	9540
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437

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AAAAACTCTC	TAGTTCCAC	TTTAAGGGAA	TTAGAGAGTT	TTTATACTCT	TCGAAAATCT	10920
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CAGCCATTTT	CCAGTACAGC	GACCTGATTT	TTCGAAACGA	CGAGGTCCTT	GGGACCTGTG	12000
ACTAAGAAAG	ACATACCAGG	ATAGGTCTGA	CACCAGTCTT	TCAAGACTTG	AAGCAAATCC	12060
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438

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GAGCAGAATA	GTGAAATTTT	CGACCGTACT	TATAAAAGAG	ACCTGCTAGA	AGGGCTCCAA	12780
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GGGCAATCAT	CATAGATAAA	ATGGTTAATT	TGTGAAGTTG	TAATTGGTGC	TTTCTCATGC	13020
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TTGGATAATT	CCATCGCAAT	ATCTGTAAAT	TCCATAATAA	CTCCTTTATA	AAAATAGACT	13740
GGTTTGAAGC	AATAAAAAGA	AAAGCAGGTA	GATTAATTTT	GTTTTTTTAG	GAATATAAAA	13800
AGTCCGATAG	CTATTCTTCA	ACTGTGCATG	TTCGTCATAT	CCGTGAGCAG	ATAGAGCTCT	13860
CAGGTAAAGA	TGGCGCCACC	TAAAGACTGT	CATCAGAACC	TTACTGTAAA	TCAAGGGCGA	13920
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439

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TGAGCAGAAA	ACTTCTTCCT	TGATTCCCTCT	CCTCCACAAT	CCACTTGCAA	AAATAATGGC	14580
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CAGCTTCCTG	AACAACACCA	GTCAGATCAC	GATACAAACT	CTTTTCTTTT	TTCAGGACCG	14880
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ACTCCTCAAA	CAAGCTCTCC	ATGGTAAATT	GATGATTAGG	ATTTTGCAAG	AGAATACCAA	15540
CCGTCTGGAC	ACGTTTCGAC	ATAGAAAGCT	GACTGACCTC	GCTCCCATCT	ATCAGGACTT	15600
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440

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441

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442

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TACCACCGAG	AGCCAAGCCA	TAGATGACAG	GGCGTCCAAT	AGCAACCAAG	TCTGCTCCTG	19980
ATGCCAAGGC	TTTAAAGACG	TGTTGACCAC	GACGAACACC	AGAGTCAAAG	ACAATCGGCA	20040
CACGTCTATC	AACTGCTTCT	GCCACTTCTT	GAAGCGAGTC	AAAGGCAGCT	GGTCCACCGT	20100
CGATTTGACG	ACCACCGTGG	TTGGTTACCC	AGATACCAGA	AGCTCCTGCA	GCAAGCGAAC	20160
GTTCACGTC	CTCACGGCAT	TGTGGTCCCT	TGACATACAC	AGGAAGACCA	GAGTATTCAG	20220
CGATAAATTC	TACATCGCGT	GGAGACAAGC	GTTGTTTAGC	TGATTTGTAA	ACAAAGTCCA	20280
TTGATTTACC	AGCACCTTCT	GGCAGGTATT	CTTCAACAAT	CGGCATGCCA	ACTGGGAAGA	20340
CAAAACCATT	ACGCTTATCC	ACTTCACGAT	TCCCCCTTAC	AGTAGCATCT	GCCGTCAAGA	20400
CAATCGCTTT	ATAACCTTCA	GCCTTCACAC	GGTCCATGAT	GTGGCGGTTG	ATACCGTCAT	20460
CCTTACTAAA	GTAAAATTGA	AACCAATGAG	GTGTCCCTTG	GAGGGCTTCA	GAAATCTCTG	20520
GAAGGTCAAC	AGTAGAGTAA	GAAGTGGTTG	TATAAAGAGA	ACCAAACCTCA	TGCACACCAC	20580
GCGCAGTCGC	CACTTCCCCC	TGTTTCATTTG	CCAATTTATG	AGCCGCAACA	GGTGCCATAA	20640
TGATTGGAGA	AGATAGTTTT	TCACCTGCAA	ATTCAATCTC	TGTACTTGGA	TTTCTACAT	20700
TGCAAAGTGT	ATGAGGAACG	ATGAGCTTGT	GGTTAAAGGC	ACGGATATTC	TCTCTTAAAG	20760
TGAAAGTATC	TTCCGCCCCA	CTAGCGATAT	AGCCAAATGC	TGCTTTAGGA	ATAACTTGTT	20820
GCGCCATTGG	CTCCAAATCA	TAGGTATTGA	TGAATCTTAC	ATGACCTTCT	GCATTGCTTG	20880
TTTTGTATGA	CATAAAATGT	CCTCCTTAAT	AAGTAAGCGT	TTACTTTGTG	TATTACAAAA	20940
ATATCTTAAC	TCTTTTTTCAA	AACTTTTAAA	ATATTTTGTT	TGGAAATTTC	AGAAATTTTA	21000
TGTCTATGAT	AAAAATCCTT	ATAACGGCAA	TAAAAAATAG	ATATTATCCA	AAGAAGATTT	21060

443

TAAGTGCTAC	AATAACTGTA	TTATTTCTAG	ATGGGAGGTT	CTATTTTGG	ATTGATCCAT	21120
TGTTGAACAA	TATCTACCAC	TATATCAAAA	GGCATTCTTT	CTGACCTTGC	ATATTGCAGT	21180
TTGGGGAATT	TTGGGATCCT	TTCTGCTCGG	TTAATCGTT	AGTATCATCC	GACATTATCG	21240
AATCCTTGTT	TTGGCGCAAG	TAGCGACAGC	CTACATTGAA	TTGTCACGTA	ATACGCCCCCT	21300
TTTGATTCAA	CTCTTCTTTC	TCTACTTCGG	TCTTCCCCGA	ATCGGGATTG	TCCTATCTTC	21360
AGAAGTCTGT	GCAACGCTTG	GGCTTGCTTT	TTTAGGAGGC	TCCTATATGG	CAGAATCTTT	21420
CCGAAGTGGG	CTGGAAGCCA	TCAGTCAAAC	CCAGCAGGAG	ATTGGCCTCG	CTATTGGTCT	21480
GACACCTCTA	CAGGTCTTTT	ACTATGTGGT	TCTTCCGCAA	GCAACAGCGG	TGGCACTCCC	21540
CTCCTTTAGT	GCCAATGTCA	TTTTCTTTAT	CAAGGAAACC	TCTGTTTCT	CAGCAGTGGC	21600
TTTGCCCGAC	CTCATGTACG	TCGCCAAGGA	TTTGATTGGT	CTCTACTATG	AGACAGACAT	21660
TGCGCTAGCT	ATGTTGGTAG	TTGCTTATCT	AATCATGCTG	CTACCCATCT	CACTGGTCTT	21720
TAGCTGGATA	GAAAGGAGGC	TCCGCCATGC	AGGATTCGGG	AATCCAAGTA	CTCTTTCAAG	21780
GAAATAATCT	CCTGAGAATC	TTACAGGGAT	TGGGCGTTAC	GATTGGGATA	TCCATCCTGT	21840
CTGTCCTCTT	ATCCATGATG	TTCAGAACAG	TCATGGGAAT	CATCATGACC	TCCCATTCTA	21900
GAATCATACG	ATTTTAAACA	CGATTGTATC	TGGAATTTAT	CCGTATCATG	CCCCAGCTGG	21960
TGCTACTCTT	CATCGTTTAC	TTTGGCTTGG	CTCGAAACTT	TAATATCAAT	ATCTCAGGTG	22020
AGACTTCAGC	TATTATCGTT	TTTACCCTCT	GGGGAACAGC	TGAAATGGGA	GACTTGGTAC	22080
GTGGAGCTAT	CACTTCTCTC	CCTAAACATC	AGTTTGAAAG	TGGACAGGCA	CTCGGCTTGA	22140
CTAATGTTCA	ACTTTACTAC	CACATCATCA	TCCCACAAGT	CTTAAGAAGA	CTGCTACCGC	22200
AGGCTATCAA	TCTTGTCACT	CGGATGATTA	AAACCACTTC	ATTAGTTGTT	TTGATTGGGG	22260
TTGTGGAAGT	GACCAAAGTT	GGACAACAAA	TCATCGATAG	CAATCGCCTG	ACCATCCCAA	22320
CTGCTTCATT	TTGGATTTAT	GGAACCATTC	TAATCTTATA	TTTCGCAGTT	TGCTACCCTA	22380
TTTCCAAACT	ATCCACTCAC	TTAGAAAAAC	ATTGGAGAAA	CTAAATGTCT	GAAACTATCT	22440
TAGAAATCAA	GGAACATAAA	AAATCCTTCG	GAGACAATCC	CATCCTCCAA	GGACTTTCTC	22500
TAGAAATCAA	AAAAGGGGAA	GTTGTTGTCA	TCCTAGGGCC	ATCTGGTTGT	GGGAAAAGTA	22560
CCCTCCTTCG	TTGCCTCAAC	GGCTTAGAAA	GTATTCAAGG	TGGAGATATT	CTTCTGGATG	22620
GTCAGTCTAT	CGTTGAAAAT	AAAAAAGATT	TTCACCTAGT	TCGCCAAAAG	ATTGGCATGG	22680
TCTTTCAAAG	TTATGAACTC	TTTCCCCATC	TGGATGTCTT	ACAAAACCTC	ATCCTAGGCC	22740
CTATCAAAGC	TCAAGGAAGG	GACAAGAAAG	AAGTAACGGA	AGAAGCTTTG	CAATTACTAG	22800

444

AGCGTGTCCG	TTTGCTGGAT	AAACAACATA	GCTTTGCCCG	TCAATTATCT	GGTGGACAGA	22860
AGCAACGTGT	TGCAATTGTC	CGTGCCCTCC	TAATGCATCC	AGAAATCATC	CTTTTGTGACG	22920
AGGTGACTGC	TTGCTGGAT	CCAGAAATGG	TGCGTGAGGT	GCTGGAACCT	ATCAATGATT	22980
TGGCCCAAGA	AGGCCGTACC	ATGATTTTAG	TAACCCACGA	AATGCAGTTT	GCCCAAGCCA	23040
TTACTGACCG	GATTATCTTC	CTCGACCAAG	GGAAAATCGC	TGAAGAAGGA	ACAGCTCAAG	23100
CCTTCTTTAC	CAATCCGCAA	ACCAAACGAG	CCCAGGAATT	TTTAAACGTC	TTTGACTTTA	23160
GCCAATTCGG	CTCATATCTA	TAAAGGAGAT	TCTTATGAAA	CTATTCAAAC	CACTCTTAAC	23220
TGTTTTAGCA	CTTGCCTTTG	CCCTTATCTT	TATCACTGCT	TGTAGCTCAG	GTGGAAACGC	23280
TGGTTCATCC	TCTGAAAAA	CAACTGCCAA	AGCTCGCACT	ATCGATGAAA	TCAAAAAAAG	23340
CGGTGAACTG	CGAATCGCCG	TGTTTGAGGA	TAAAAAACCG	TTTGGCTACG	TTGACAATGA	23400
TGGTTCTTAC	CAAGGCTACG	CTACGATATT	GAACTAGGGA	ACCAACTAGC	TCAAGACCTT	23460
GGTGTCAAGG	TAAATACAT	TTCAGTCGAT	GCTGCCAACC	GTGCGGAATA	CTTGATTTCA	23520
AACAAGGTAG	ATATTACTCT	TGCTAACTTT	ACAGTAACTG	ACGAACGTAA	GAAACAAGTT	23580
GATTTTGCCC	TTCCATATAT	GAAAGTTTCT	CTGGGTGTCG	TATCACCTAA	GACTGGTCTC	23640
ATTACAGACG	TCAAACAAC	TGAAGGTAAA	ACCTTAATTG	TCACAAAAGG	AACGACTGCT	23700
GAGACTTATT	TTGAAAAGAA	TCATCCAGAA	ATCAAACCTC	AAAAATACGA	CCAATACAGT	23760
GACTCTTACC	AAGCTCTTCT	TGACGGACGT	GGAGATGCCT	TTTCAACTGA	CAATACGGAA	23820
GTTCTAGCTT	GGGCGCTTGA	AAATAAAGGA	TTTGAAGTAG	GAATTACTTC	CCTCGGTGAT	23880
CCCGATACCA	TTGCGGCAGC	AGTTCAAAAA	GGCAACCAAG	AATTGCTAGA	CTTCATCAAT	23940
AAAGATATTG	AAAAATTAGG	CAAGGAAAAAC	TTCTTCCACA	AGGCCTATGA	AAAGACACTT	24000
CACCCAACCT	ACGGTGACGC	TGCTAAAGCA	GATGACCTGG	TTGTTGAAGG	TGGAAGGTT	24060
GATTAGTCAT	TAACCTTTAA	AAGGAACTGG	ATTTTAAAGCT	CCAATCCCTT	TTTAAGATTT	24120
TACCTATAAC	ATCCTGAGTC	TATCTAAGAT	GTTCAATCTG	AACACAGTGT	ACATACTTTA	24180
TCTTCTATTG	CATATACTTT	ATCACATAAG	ATACGAATAT	CCTCTTCACT	ATGACTAGCA	24240
ATCAAAATTG	TTGTCCCTTT	TTCAC TAGAG	AGCTTTCTAA	ACAATGTTCT	CATATTTTCT	24300
ACACTTGATT	TATCCAAGGC	ATTCATAGGT	TCATCTAGTA	AAAGAATAGA	GGGATTCTCC	24360
ATAATTGCTT	GAGCAATCCC	TAGCTTTTTT	CTCATACCTA	GCGAATAAGT	TTTAACTTTC	24420
TGGTCTTTTT	GCTCATATAG	ACCAACTATT	TTCAGTGAT	CATTGATTTT	CTGATTACCA	24480
ACTACTCCTC	GTATGCTTGC	CAAATATTGT	AAATTCCTTA	AGCCACTATA	ATAATTTATA	24540
AAACCAGGTT	CTTCAATCAA	AGCTCCCAAA	TTAGCTGGAA	TTTTTCTCTC	AGGAACAATA	24600

445

TTTTCCCCAT TGATTAACAC TTCTCCATAA GACGGACTAT ATAAACCAGC TATTAATTTA	24660
AACAATACAC TTTTCCCTGA GCCATTTCGA CCAGTAATTC CTATAATTTT CCCCTGTTTA	24720
CAACTAAAGT TAAGGTTTTG AAAAACACAT GTCTTTTTTA ATTTCAACTC AATATTTTTT	24780
AATGTAATTA TTTCAATTCAT TCTATAAACC TCCTCTTTTG ACGAGTGAAA TAGAAAATGC	24840
TTTGAAAAAG AAAGACTAAA AATAGCAACT GAAGAAATAA ATCTCGTCCT ATATCTCCAT	24900
TCCCTCGATT CAAAATATAA AATAGATAAT TAGTTCGATT TCCTACAAAT AGACCACCAA	24960
ACACAATCAT GAGTAAAAAG AACTAACGC AAGCAAAGTT CG	25002

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11443 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

CAGGTACGGT GAGGCGCAAC TAAAATATAA TTTTCATCTT GATTAGGAAT TTTATCAGTA	60
TTATGATAGT GAGCATTGCC ATTGATGGAC CATAAGAGCA ATACAACTAA TCCACGCAAA	120
TAAGTATAAA ACATGCGATC TCCTTCGATT GTTTTCTTGT TATTATTATA CCTTATCAAA	180
GGAGGGCTGG CAAACTTTTC CCTTGACTAG ATACATATTT AGGATGAAAT TAGAATTCTG	240
TTAAAAAATA TGATATAATA GAATTTATGG ATAAAAATAA GATTATGGGA TTAACCCAAA	300
GAGAAGTCAA GGAAAGACAG GCTGAGGGTT TGGTCAATGA CTTTACCGCA TCAGCCAGTA	360
CCAGCACTTG GCAAATCGTT AAACGAAATG TCTTTACCCT TTTTAACGCT TTGAACTTTG	420
CCATTGCTTT GGCTCTTGCC TTTGTGCAGG CTGGAGCAA TCTGGTCTTC TTGCTGTTA	480
TCTGCTTTAA CGCTTTTTCT GGGATTGTGA CCGAGCTACG AGCCAAACAC ATGGTGGACA	540
AGCTCAATCT CATGACCAAG GAAAAGGTCA AAACCATCCG TGATGGTCAG GAAGTTGCTC	600
TTAATCCTGA AGAATTAGTG CTAGGAGATG TCATTCGTTT GTCTGCAGGA GAGCAGATTC	660
CTAGTGATGC CTTGTTTGTG GAAGGCTTTG CGGAAGTCAA TGAAGCCATG TTAACGGGAG	720
AAAGTGATTT GGTGCAAAAG GAAGTTGACG GCTTACTTTT GTCAGGAAGT TTCCTAGCCA	780
GTGGGTCAGT TTTATCTCAA GTTCACCATG TCGGTGCAGA CAACTATGCT GCCAAACTCA	840
TGCTTGAGGC TAAGACCGTT AAACCCATCA ACTCCCGTAT CATGAAATCG CTGGACAAGT	900
TGGCTGGTTT TACTGGGAAG ATTATCATTC CCTTTGGTCT GGCTCTCTTG CTGGAAGCCT	960

446

TGCTTTTAAA	AGGCCTGCCT	CTCAAGTCAT	CCGTTGTAAA	CTCGTCGACA	GCTCTTTTGG	1020
GAATGTTGCC	TAAGGGAATT	GCCCTTTTGA	CCATTACTTC	GCTCTTGACT	GCAGTGATTA	1080
AGTTGGGCTT	GAAAAAGGTC	TTGGTGCAGG	AGATGTACTC	TGTTGAGACC	TTGGCGCGCG	1140
TGGATATGCT	CTGTCTGGAC	AAGACGGGTA	CCATCACCCA	AGGAAAGATG	CAGGTGGAGG	1200
CTGTCTTCC	GTTGACGGAA	ACGTATGGTG	AAGAGGCTAT	TGCCAGCATC	TTGACTAGCT	1260
ACATGGCCCA	TAGTGAGGAT	AAGAATCCAA	CTGCCCAAGC	CATTGCGCCAG	CGTTTTGTGG	1320
GAGATGTTGC	TTATCCTATG	ATTTCCAATC	TTCCCTTCTC	GAGCGACCGC	AAGTGGGGGG	1380
CTATGGAGTT	AGAAGGCTTG	GGGACAGTTT	TCTTAGGGGC	ACCTGAGATG	TTGCTTGATT	1440
CTGAAGTCCC	AGAAGCTAGG	GAGGCCCTGG	AGAGAGGATC	ACGTGTCTTG	GTCTTAGCTC	1500
TCAGTCAGGA	GAAATTAGAC	CATCACAAAC	CACAGAAACC	ATCTGATATT	CAGGCTCTAG	1560
CCTTGCTGGA	AATCTTGGAC	CCCATTGCGAG	AGGGAGCAGC	AGAGACGCTG	GACTATCTCC	1620
GTTCTCAGGA	GGTGGGACTC	AAGATTATCT	CTGGTGACAA	TCCAGTTACG	GTGTCCAGCA	1680
TTGCCCAGAA	GGCTGGTTTT	GCGGACTATC	ACAGCTATGT	AGATTGCTCA	AAAATCACCG	1740
ATGAGGAATT	GATGGCCATG	GCGGAGGAGA	CAGCTATTTT	CGGACGTGTT	TCCCCTCATC	1800
AAAAGAAACT	CATCATCCAA	ACGTTGAAAA	AAGCGGGACA	TACAACGGCT	ATGACAGGGG	1860
ACGGGGTTAA	TGATATCTTG	GCCCTTCGTG	AGGCGGATTG	TTCTATCGTG	ATGGCGGAGG	1920
GGGATCCAGC	AACCCGTCAG	ATTGCCAATC	TGGTCTCTCT	GAACCTCAGAC	TTTAATGATG	1980
TTCTTGAGAT	TCTCTTCGAG	GGTCGTCGCG	TGGTCAATAA	CATTGCCAC	ATCGCCCCGA	2040
TTTTCTTGAT	AAAGACCATC	TATTCCTTCC	TGTTAGCAGT	CATCTGTATT	GCCAGTGCTT	2100
TACTAGGTCG	GTCAGAGTGG	ATTTTGATTT	TCCCCTTCAT	TCCGATCCAG	ATTACCATGA	2160
TTGACCAGTT	TGTGGAAGGT	TTCCCACCAT	TCGTTCTGAC	TTTTGAGCGA	AATATCAAAC	2220
CTGTTGAGCA	GAATTTCCCT	AGAAAATCCA	TGCTTCGTGC	CCTACCAAGC	GCTCTCATGG	2280
TCGTCTTCAG	CGTCCTGTTT	GTGAAAATGT	TTGGCGCGAG	TCAAGGTTGG	TCTGAGTTAG	2340
AAATCTCAAC	TCTACTCTAT	TATCTCTTGG	GGTCAATTGG	TTTCTTATCC	GTATTTAGAG	2400
CCTGCATGCC	ATTTACCCTA	TGGCGTGTCC	TCTTGATTGT	TTGGTCAGTA	GGAGGTTTCC	2460
TAGCCACAGC	TCTCTTCCCA	AGAATTCAAA	AACTGCTTGA	AATTTCACC	TTAACAGAAC	2520
AAACGTTGCC	TGTTTATGGT	GTGATGATGT	TGGTCTTTAC	CGTGATTTTC	ATCCTGACCA	2580
GTGCTTACCA	AGCGAAAAAA	TAAATCAAAA	CCACCAGTGT	GAACGGTGG	TTTGTCTGTC	2640
GGCTATAAGC	CGCTTCTACC	GGCCAGGGCC	AAAGGCCAC	CGAAATAGCT	TCCTCGCGCA	2700
CCACTTTCCC	GAGCAGGTGC	TAAAGCACCT	TAGTTACTTC	CTCTTATTTA	TTTCGCCAGT	2760

447

AAACGGATCT	ACTGACTCGA	ATAACGTGAG	CTGGTCTGCT	ACTCTGTCTT	CTTGTAATTG	2820
ATTCTGAATA	TATTCAGCTA	TCACCTTCTG	ATTACGGCCT	ACCGTATCTA	CATAATAGCC	2880
TCTACACCAA	AACTTGCGAT	TGCCATATTT	GTATTTTAAA	TTCGCATGCT	TATCAAAAAT	2940
CATCAAACCTG	CTCTTGCCCT	TTAAATAGCC	CATAAAGGAC	GAAACACTAA	GTTTCGGAGG	3000
AATACTGATA	AGCATGTGAA	TATGGTCTGA	ACAAGCATTC	GCTTCATGGA	TTATTACACC	3060
CTTACGCTCA	CATAAGTCAC	GTATGATTCT	TCCGATACTA	GCTTTGTATC	TGCCATAAAT	3120
GATTTGACGA	CGATATTTGG	GTGCAAAAAC	AATATGATAT	TTACAATTCC	ATGTGGTATG	3180
TGATAAACTT	TGATTATCCT	CTCTCATGAG	GTACCTCCTG	TATGATATGT	TGTAGTGGCG	3240
GAGAAACCAC	TTCTATCTTA	TCATTTTAGG	AGGTTCTTTT	TGTTACCACG	CTAAAAGCTC	3300
TATGGAACCA	CTAGCATAGC	TAGTGGTTTT	CGGGAGACAA	CAAGAAAGAC	TGCAATCTGT	3360
GGATTGCAGT	TTTTTATACG	ATGGATCTAT	CGTAGATCTG	ATGTGCAAGG	CCTACGTGCC	3420
GATCATCTAT	CGGTGAACCC	AAGAGCGACC	CTCAAGCCTG	CTTGGATTGA	GGTAATAGAT	3480
TCAAATATCT	GTAAGTTAGC	TATTTGAAGT	TTGATGTAAG	AAAGAGAAAG	CGACAGATTG	3540
AAGTAATTTT	AACTCTCTTC	TATTGCTAGA	ACAAATGGTC	GGATAGGTTG	GTAAGTTGAA	3600
AATGAAGATG	CTATCTATTG	TTAAATGGAA	CATAGTGTTA	TTTATTAGAA	AATCGTTTGG	3660
TTTATTTCTT	ATCAAATACG	AAAAGCAACT	TAAATATTTC	AACTAAAATA	GATGTTATGA	3720
AGAAAAGGTA	AAATGATTTT	GGCATAGTGA	GGTCTGTTC	TATTTGATAT	CATATTTTTC	3780
ATAAAAACAA	AAATGTCCAT	TGCAAAGGAC	AAAATGCGAA	GTATATTATT	TTTTGAAAGC	3840
GATATAATGG	ATTCATAAAG	GAGGTGTATC	GTGTCTAGAA	AACAAGAACA	AATGGAAACG	3900
TTGTTGCTCC	TTTGTGCGAG	TAGTAAGGAT	TATATATCTG	CTAAAGTATT	GGGAGAAAAA	3960
TTAAATTGCT	CTGATAAAAC	GGTTTATCGC	CTTGTCAGG	GAATCAACAA	AGATTGTCCG	4020
GTAGAAGCAT	TCATTTTATC	TGAAAAAGGC	AGAGGTTTCA	AATTAAATCC	AAGAAGTTCC	4080
CTCGTGGACG	TTGATGGGAA	TTTACAGAG	GCTTTTGATC	CTGAAGTAAG	GCGTGAAAAA	4140
TTACTAGAAC	GTCTCTTGT	GACTGCTCCT	AAGCCACATT	CTATTTATGA	TTTAGGAGAG	4200
GAATCTTACG	TAAGCGAGTC	AGTAGTACTA	AAAGATCGTC	AGATATTACA	AGAGAGTCTA	4260
GCAATTTATG	GGTTAGATTT	AAAAATGAGA	CAACGAAAGC	TTTTTATTGA	TGGGGATGAG	4320
GCTCAAATTC	GTTTCAGCCAT	TCTAAATCTA	CTGCCAATGT	TTAATCAGTT	GGATTTAGAG	4380
CAAAATTACAC	AGAATAAGGT	TCAGCCTCTT	GACGGAGAAC	TTGCTCACTT	TTGTTTGGGA	4440
TTACTGATTA	CACTTGAGAG	AGAATTGGGG	GTAACATTC	CCTATCCATA	TAATATAAAT	4500

448

ATTTTCTCTC	ACCTGTATAT	TTTATCAGT	AGGAATCGTC	GTAGTACTAG	TATTCATGTT	4560
GTAGCACCTT	CAAAACCTAC	TATTGTTGAT	GAGAAAATT	ACAGTGTCTG	TCAAAAAATT	4620
ATTCAAGAAA	TTGAACAATA	TTTATAGGATG	AAGGTTGATG	CAGTTGAGAT	TGACTATCTT	4680
TATCAATACG	TTGTATCTTC	GAGATTGCAA	AAACCATTTT	CTTCCGGGAA	GCTTCCTTTT	4740
TCTCAGCGAG	TTTATAGATGT	CACTCATTAC	TATTTTAGCC	GTATGTGTAT	GGACAATAGA	4800
GAGATTGAAA	CGACAGATCC	TGACTTTGTT	GACTTGGCGA	GTATATCAG	TCCCTTACTG	4860
AGGAGATTAG	ATAATAGAGT	ACAGATTAAG	AATAGTCTTT	TATCACAAAT	TCTTTTAACC	4920
TATCCTAATC	TGGTTAAAGA	GTTAACAAC	ATTCTTAAAG	AAGTGAGTCT	AGTATTTGGT	4980
TTTGCTTCCT	TGAGTCTGGA	CGAGATTGGT	TTTCTAGTCT	TATATTTTGC	ACGGTTTCAA	5040
GAAAAGCGAG	CACGTCTCT	AAAAACAGTA	GTGATGTGTA	CATCAGGTGT	CGAACTTCA	5100
GAGCTTTTAC	GAGCACGATT	AGAAAAGCAA	TTTCTGAAT	TGGATATTAT	TGATGTAGTT	5160
GCTTATCATC	AATTAGATGA	GCTGATAAAT	CTATATCCAG	ATTTAGATTT	CATTGTGACG	5220
ACGGTAGCTT	TGCAGGAACC	AGCAAGTGTC	CCGTTTGTC	TAGTTAGTGT	TTTCTAACC	5280
GAGGGTGATA	AACAACGTCT	TCAAGCAAAA	ATTCAGGAGA	TAACTATGA	ATAATCTTTC	5340
GCTTGTCCTT	ATGGATATAT	CTGTTCAAAA	TCGTCAAGAA	GCCTACAAAG	AATTAGCAAA	5400
TCAAATCAGC	CTTCTTGTTT	CTGAAGATAC	AGAAAAATA	GAAGAGCTTC	TATATTACCG	5460
TGAGAGACAG	GGAAGTATAG	AGGTTGCTAA	AGGTGTTCTT	CTACCACATT	GTGAAGGAAA	5520
CTTCAACAT	CATGTCTTAG	TGATTACTAG	ATTAAATCA	CCTATCAGAG	AATGGTCGAA	5580
GGATATCCAG	TGTGTTGACC	TTATTATCGG	TTTGGCCATT	GCAGTATCAC	AGGACAAGTC	5640
ATGTATTAAA	ACATTGATGA	GAAGACTAGC	AGATGAATCA	TTCATAAATC	AATTAAAACA	5700
GTTAACAAAA	GAAGAATTAC	GGGAGATAAT	ATATGGAAAT	CAAAGATATT	CTTAATGTGA	5760
GTCTGATCCA	GACGGATTTA	CAGATGCAGA	GCAAAGAAGA	GGTTTTTGAG	GCATTAGCTC	5820
AACTATTGGT	TGAGACGGGT	TATGTGTCTG	ATAGAGACCA	ATTTATCGAA	GGTCTTTATC	5880
AGAGAGAGGC	AGAAGGACAG	ACCGGTATTG	GGAATTATAT	TGCTATTCCC	CATAGCAAGA	5940
GTTCTGCTGT	GGAGAAGGCG	GGGGTAGTCA	TAGCTATAAA	TCACAATGAG	ATTCCTTGGG	6000
AGACCATTGA	TGGGAAAGGG	GTCAAAGTAA	TTGTACTCTT	TGCAGTTGGT	GATGATACAG	6060
AAGCTGCTAG	GGAGCATTTG	AAGACCTTAT	CACTCTTTGC	TCGAAAACCT	GGTAATGACG	6120
AAGTTGTTGC	CAAATTAGTT	CGGGCTCAGA	CATCTGATGA	TGTGATTGCA	GCTTTTGT	6180
AATAAGAAAA	AATTTTGAG	GGTATCCGTA	TGAAAATTGT	TGGTGTGCA	GCTTGACTG	6240
TGGGAATTGC	CCACACTTAT	ATTGCACAGG	AAAAATTAGA	GAATGCCGCA	AAGGTAGCTG	6300

GACATGTGAT TCATGTTGAG ACTCAGGGGA CAATAGGGGT AGAAAATGAA TTGACTCAAG	6360
AGCAGATTGA TGCAGCGGAT GTAGTTATTT TAGCAGTTGA TGTTAAGATT TCTGGTATGG	6420
AACGCTTTGA GGGTAAAAAG ATTATCAAGG TTCCAACAGA AGTGGCAGTC AAATCTCCCA	6480
ATAAACTGAT TGCTAAAGCT GTTGAGATTG TTACGAAATA ACTGAAAATA TTTAAGGAGA	6540
AAATATATGT TGAAACACTT AAACCTAAAA GGTCACTTAT TGACAGCCAT TTCCTATATG	6600
ATTCCAATTG TTTGTGGTGC AGGATTCTTA GTTGCCATTG GTTTAGCAAT GGGGGGTGGT	6660
GTTCCTGACG CTCTTGTAGC AGGAAAATTC ACTATCTGGG ATGCTTTAGC AACTATGGGT	6720
GGTAAAGCCC TTGGTCTCTT GCCAGTTGTT ATTGCTACAG GTTTGTCTTA CTCGATTGCT	6780
GGTAAGCCAG GGATTGCACC AGGTTTTGTT GTTGGTCTAA TTGCCAATTC TGTGGTTCA	6840
GGGTTTATCG GTGGTATCTT GGGAGGTTAT ATAGCTGGTT TCTTGGTTCA AGCGATTATT	6900
AAAAAGGTCA AAGTACCAA CTGGATTAAA GGTTAATGC CAACCTTGAT TATTCCTTTT	6960
GTAGCCTCTT TGTAAGTAG TTTGATTATG ATTTATATTA TTGGAGCGCC TATCGCAGCC	7020
TTTACCAACT GGTGACGAG CTTATTACAA AGCTTGGGAA GTGCTTCAAA TGGTTTGATG	7080
GGGGCAGTTA TTGGAATTCT CAGTGCTGTT GACTTTGGTG GCCCACTTAA TAAAACAGTC	7140
TATGCGTTTG TGTGACTTT ACAGGCTGAA GGTGTGAAAG AACCATTGAC TGCTTTACAA	7200
TTGGTGAATA CTGCTACACC AGTTGGATT TGGATTGGCCT ATTTTATCGC GAAATTACTC	7260
AAAAAAATA TCTATACTCA AGAGGAAATC GAAACATTGA AATCGGCTGT TCCTATGGGG	7320
ATTGTCAATA TTGTTGAAGG TGTAATCCG ATTGTTATGA ATAACTGGT TCCAGGTCTC	7380
ATTGCAACAG GTATCGGTGG TGCTGTTGGT GGTGCTGTTT CTTTGACAAT GGGTGCTGAT	7440
TCTGCTGTGC CATTTGGTGG AGTGCTTATG TTACCAACCA TGACTCGTCC AGTAGCTGGT	7500
ATTTGTGCCT TGTAGCTAA CATTGTAGTC ACAGGACTTG TCTACGCGAT TTTGAAAAAA	7560
CCAATAAAAC ATGCAGAACC AGTTATGACT GTTGAAGAAG AGATTGATTT GTCAGATATT	7620
GAAATTTTGT AAGAGGGTAA CGATGTCAAG AATTGAATTT TCACCATCTT TGATGACCAT	7680
GGATTTGGAC AAATTCAAAG AGCAGATTAC TTTTGTGAAT GATAAAGTAG CATCTTATCA	7740
TATCGATATT ATGGATGGCC ATTTTGTTC CAATATTACC TTGTCTCCTT GGTTCATTCA	7800
AGAAGTTCAA AAAATTAGTG ACACACCTTT ATCAGTTCAT CTGATGGTCA CAGACCCAAC	7860
CTTTTGGGTA GATCAAGTTC TCGATTTACA ATGTGAGTAT ATTTGTATTC ATGCTGAAGT	7920
TCTGAATGGT CTTGCTTTTC GTTTGATTGA TAAATTCAT GATGCAGGTC TAAAGGCTGG	7980
TGTTGTCCTT AATCCTGAAA CACCTGTTTC TACAATCTTT CCCTACATTG ATTTACTTGA	8040

450

CAAAGCAACT	ATTATGACTG	TAGATCCAGG	TTTTGCAGGA	CAACGCTTTT	TGGAGTCTAC	8100
CTTGTATAAA	ATCCAAGAAC	TCCGTCAGCT	TAGAGTTCAG	AATGGTTATC	ACTACATCAT	8160
TGAGATGGAT	GGTTCCTCGA	GTCGTAAGAC	TTTCAAACAA	ATTGATGTGG	CAGGACCAGA	8220
TATTTATGTT	ATAGGTCGCA	GTGGATTATT	TGGTTTGGAT	GACGATATTG	CCAAAGCCTG	8280
GGATATCTGT	TCTAGAGATT	ACGAAGAAAT	GACCGGAAAA	ACAATGCCAA	TCAAATAATG	8340
GTTTGAGAAG	AAATTTATTA	GTTAGGAGGA	ATATATGTCA	CTACAATCAG	TTAACGCCAT	8400
TCGTTTCTTT	GGCGTAGATG	CTATTAACAA	ATCTAATTCT	GGTCACCCGG	GAATTGTCAT	8460
GGGTGCTGCG	CCAATGGCTT	ATAGCCTATT	TACAAAGCAC	CTTAGAATTA	CACCTGAGCA	8520
GCCAAACTGG	ATTAACCGAG	ATCGCTTTAT	CTTGCTGCG	GGTCATGGAT	CAATGCTACT	8580
GTATGCTCTC	TTGCATTTAA	CAGGGTATAA	GGATGTATCC	ATGGACGAGA	TTAAAAATTT	8640
CCGGCAATGG	GGATCTAAGA	CACCTGGTCA	TCCTGAAGTG	ACGCATACGT	CTGGTGTGGA	8700
TGCGACATCT	GGTCCGCTTG	GTCAGGGGAT	TTCTACTGCC	GTTGGTTTCG	CCCAAGCAGA	8760
GCGTTTTTTA	GCTGCTAAGT	ACAACAAAGA	TGGTTTCCCT	ATTTTTGACC	ATTATACTTA	8820
TGTTATCGCT	GGAGACGGTG	ACTTCATGGA	AGGAGTGTCT	GCGGAGGCGG	CTTCTTATGC	8880
AGGTCATCAA	GCTTTAGATA	AGCTTATCGT	CCTCTACGAC	TCCAACGACA	TCTGCTTGGA	8940
TGGTGAGACC	AAAGATACTT	TCTCTGAAAA	TGTTCCGCGT	CGTTACGATG	CTTATGGTTG	9000
GCATACAGTT	CTGGTAGAAG	ATGGAACAGA	TTTAGCAGCA	ATTTCTACAG	CAATTGAGAC	9060
GGCCAAGTTT	TCTGGTAAAC	CGAGTTTGAT	TGAAGTGAAA	ACGGTAATTG	GTTACGGCTC	9120
ACCCAATAAA	AGTGGTACAA	ATGCTGTTC	TGGTGCACCA	CTAGGAGCAG	AAGAAACAGG	9180
AGCAACTCGT	AAGTTTTTGG	GATGGGATTA	CGATCCATTT	GAAGTACCAG	AGGAAGTATA	9240
TTCTGATTTT	AAGACAAATG	TAGCGGATCG	TGGTCAGGAG	GCATACGATG	CTTGGGCTAG	9300
TTTGGTGTCT	GATTACAAGG	TTGCTTATCC	CGAAGTTGCT	AGTGAGATTG	ACGCTATTGT	9360
AGCTGGAAAA	TCCCCTGTAA	CCATTACTGA	AAAAGACTTC	CCTGTCTATG	AGAATGGCTT	9420
CTCTCAAGCA	ACTCGTAATT	CGTCCCAAGA	TGCTATTAAT	ACAGCAGCAG	TTTTACCAAC	9480
CTTCTTAGGT	GGATCGGCAG	ACTTAGCTCA	CTCTAACATG	ACCTACATCA	AGGCAGATGG	9540
CTTACAAGAT	AAATATAATC	CATTAAACCG	CAATATTCAG	TTTGGGGTAC	GTGAATTTGC	9600
CATGGGAACA	ATCCTCAATG	GAATGGCTCT	TCATGGTGGT	TTACGAGTTT	ATGGCGGAAC	9660
CTTCTTTGTT	TTCTCTGACT	ACGTCAAAGC	TGCTATTTCG	CTATCAGCCA	TTCAGGAGTT	9720
GCCTGTAACT	TATGTCTTTA	CCCATGATTC	AATTGCCGTT	GGTGAAGATG	GTCCAACTCA	9780
TGAACCAAGT	GAACATTTGG	CAGGTTTACG	CTCAATGCCA	AACTTGACTG	TTATCCGTCC	9840

451

AGCGGATGCC	CGTGAAACTC	AAGCGGCTTG	GCATCATGCC	TTGACCAGTA	CCACCACTCC	9900
AACTGTCATT	GTCTTAACCC	GTCAAAACTT	GGTAGTTGAA	GAAGGGACAG	ACTTTGGTAA	9960
GGTCGCTAAA	GGAGCCTACG	TCGTGTATGA	TACCCCGGGA	TTTGATACTA	TTATCATTGC	10020
TACAGGATCT	GAGGTCAATC	TAGCTATCAA	AGCTGCTAAG	GAATTGGTTT	TACAAGGTGG	10080
TAAAGTACGT	GTGGTATCTA	TGCCCTCAAC	CGAACTATTT	GATGCTCAAG	ATGCTACCTA	10140
CAAGGAAGAC	ATTTTACCAT	CTAAGACTCG	TCGTCGTGTG	GCCATTGAAA	TGGCAGCGAC	10200
CCAAAGTTGG	TACAAGTATG	TTGGTTTGGG	TGGCGCGGTC	ATCGGTATTG	ACATCTTCGG	10260
TGCGTCTGCC	CCAGCTCAGA	CTGTGATTGA	TAATTATGGA	TTTACGGTAG	AGAATATCGT	10320
TGCTCAAGTT	AAGTCCCTAT	AGAAACCAAT	TACAAATGAAG	ATACAGCTGT	TGTCAGACTA	10380
GCAGATGTAG	TGATAGACAC	TAATCAGATG	ATTGGTTATT	TAAAAACTGT	AATGAAAATG	10440
TAATAATTTA	TCTACGAAAG	TTATAGTAGA	TAGTATACAC	AATAGAGTAT	ACCCTGAAAC	10500
GGTTGCGAAG	TACGCTAATC	ACTTTGCTAC	TGATCTAGAT	AGTTTCTTTA	ATCAATAAAC	10560
ACAGCATCCA	CAGATTGACT	TAGGATATTG	TAAGTTTTTT	GAAAGCTAGA	GAGAAGGTCT	10620
CTAAATTA	AAAACGCATA	GTATAGGATG	TTGAAATGAT	GAAGTGCACC	CCAAAAGTTA	10680
GACAGAAAAA	AATCTAACTT	TTGGGGTGTT	TTTATTATGA	AATTAACCTA	TGATGATAAA	10740
GTTCAGTTCT	ATGAAGTTAG	AAAACAAGGA	TATATCTTAG	AGAAGCTTTC	AAATAAATTT	10800
GGGATAAATA	ATTCTAATCT	TAGGTACATG	ATTAAATTGA	TTGATCGTTA	CGGAATAGAG	10860
TTTCGTCAAAA	AAGGGAAGAA	TCGTACTAT	TCTCTGATT	TAAAACAAGA	AATGATTCAT	10920
AAAGTCTGAC	ATGAAGGCTG	GAATAAGAT	AGAGTTTCTC	TTGAATACGG	TCTCCCAAGT	10980
CGTAGCATA	TTCTTAACCTG	GCTAGCACAA	TACAGGAAAA	ACGGGTATAC	TATTGTTGAG	11040
AAAACAAAAG	GGAGAGTACC	TGAGAGCGGA	GAATGCCATC	CTAAAAAAGT	TAAGAGAACT	11100
CCGATTGAAG	GAGGAAAAAG	AGAAATAAGA	AAGACAGAAA	TTGTTCAAGA	ATTAATGACT	11160
GAGTTTTCGT	TAGATCTTCT	TCTAAAAGCC	ATTAAACTAG	CTCGTTGGAC	CTACTACTAT	11220
CACTTGAAAC	AGCTAGATAA	ACCAGATAAG	GACCAAGAGC	TTAAAGCTGA	AATTCAATCC	11280
ATCTTTATCG	AACACAAGGG	AGATTATGCT	TATCGCCGGG	TTTATTTAGA	ACTAAGAAAT	11340
CGTGCTTATC	TGGTAAATCA	TAAAAGAGTT	CAAGGCTTGA	TGAAAGTACT	CAATTACAA	11400
GCTAGAATGC	GACAGnAACG	AAAATATTCT	TCTCATAAAG	GAG		11443

(2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5338 base pairs

452

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

CCAATTACAT TATATTATCA AAATCGTCGA AACTGGCTCC ATGAATGAGG CAGCCAAGCA	60
ACTCTTTATC ACTCAGCCAA GTCTCTCCAA TGCAGTGC GA TTTTGGAAA ATGAAATGGG	120
CATTGAGATC TTTATCCGCA ATCCCAAGGG AATCACCTTG ACCCGTGATG GCATGGAGTT	180
TCTCTCTTAT GCCCCTCAGG TTGTGAGCA GACCCAGCTT CTGGAGGAAC GCTATAAAAA	240
TCCTGTCGCC CACCGCGAAC TCTTTAGCGT TTCGTCTCAA CACTATGCCT TTGTGGTCAA	300
TGCCTTTGTC TCTTTGCTCA AGAAAAGCGA TATGGAGAAA TACGAACTCT TCCTTCGTGA	360
AACTCGGACT TGGGAGATTA TCGACGACGT CAAGAACTTC CGCAGTGAGG TCGGGGTCCCT	420
CTTCTTAAAC AGTTACAACC GTGATGTTTT AACCAAGATG CTGGATGACA ATCACCTGCT	480
AGCCCACCAT CTCTTCACAG CGCAACCGCA TATCTTTGTC AGCAAGACCA ACCCTCTGGC	540
AAAGAAAGAC AAGGTGAAAC TGTCTGATTT GGAGAATTTT CCTTACCTCA GCTATGACCA	600
AGGGACGCAC AACTCCTTCT ACTTTTCAGA AGAGATTCTT TCTCAAGAAC ACCACAAGAA	660
ATCCATTGTG GTCAGTGACC GTGCCACCCT CTTTAATCTC TTGATTGGTT TGGATGGTTA	720
TACCATTGCG ACAGGGATTT TGAACAGCAA CCTAAACGGA GACAATATCG TTTCTATCCC	780
ACTGGATATT GATGACCCGA TCGAGCTGGT CTATATCCAG CATGAGAAAA CCAGCCTATC	840
TAAGATGGGC GAACGCTTTA TAGACTATCT CCTAGAAGAA GTTCAGTTTG ATAGTTGAGA	900
AATGATAAGA ACCAATATGT AGGCTAGCAA CAACCTGCAC ATTGGTTCTT TTTACTTATA	960
ATTAAAAGTT TCCCCTGCCA ACTTATCAGC TAGCTTGGGA AAGAGAGTAT AAAACTTATG	1020
GGCTAGGTTT AACAAAATCG GGAGATTGAG TTCTCGTTTG TTTTTCCTA TAATCTTGAC	1080
AATCTTTTTA GCCACTGCAT CTGGTTCTAG CAGGAAGCGA TCAACCGATT TAAGATAAGT	1140
TCCATCTGGG TCGGCTTGGT CGAAAAATCC TGTACGGATT GGTCTGGAT TGACTGTTGT	1200
CACATAGACT CCATAGGGCA TAAGTTCGAG TCGCAGAGCA TTTGAAAAAC CAATAGCCGC	1260
AACTTGATC GCTGAGTAAA GACTAGACTT GCCAGTAGCT ATTAGACCTG CCATGCTGAC	1320
GATGTTGATG ATATGCCCTT TGCTGCTTTC CTTACATCGA GCCGCAAGGT GACGAGACAG	1380
ATTCATCAGG GCAAAGGTAT TGACCTCAAA CATCTGGTGA ATATCTTTAT CAGCAATCTG	1440
GTCAAATCCC TCAAAAATCC CGTAACCAGC GTTGTTAATC AAGACATCAA TCTTGCCATA	1500
GCGGAGATAA AGATCAGTTA CCAGAGCTTC TAGGGCTGAA TCGTCGGTAA TATCAATTTT	1560

453

AATCAATTCT	GCATGGGAAT	AATTTCCGTA	GAGTTGGGCT	AATTTTTCCT	TATTTCTACC	1620
AAGCAAGATG	AGTTGGTCAT	TGGGCAGGAG	TTTGACCATT	TCTTGAGCTA	GACCACCGCT	1680
AGCTCCGGTA	ATGAGAATAG	TAGGCATACT	TATCCTTTCT	GTGACTGCTA	GATTTCCACT	1740
TCTTCCAAGT	CTTTGACCAC	ATGGACATTT	TCAAAAATTG	TGGCAGCGTC	TTTCTTGAGT	1800
TTGCTAATAT	CTTTTGAGAG	GAAACGGGCA	CTGATATGGT	TGAGTAGGAG	GCGTTTGGCA	1860
CCTGCTTCTA	CCGCTACTTG	TGCAGCTTGC	ATATTAGTTG	AGTGACCATG	GTTACGAGCA	1920
ATTTTTCAT	CACCTTGCC	ATAAGTGAC	TCATGAAC TA	GGACATCTGC	ATTGACAGCC	1980
AGACGCACAC	TGGCACCCGT	TTTTCGAGTG	TCTCCTAAAA	TAGTGATAAT	CTTACCTGGA	2040
CGTGGCGCTG	AGATATAGTC	TGCTGCCTTG	ATTTTCAGTTC	CGTCTTCCAA	AACAAGATCC	2100
TGGCCGTTTT	TGATTTTACC	AAAAAGCGGG	CCGAACGGAA	CACCAGCAGC	CTTGAGTTTT	2160
TCAGCATCCA	GCGTCCCTTC	TAGATCCTTT	TGCATGACAC	GATAGCCAAC	ACAGAAAATA	2220
GTGTGGTCCA	GCTCCTCTGC	ATACACAGTG	AATTTATCGG	TTTCAAGAAT	TTTACCCAGA	2280
GAATCTTGGT	CAAACTCATG	GAAATGAATG	CGGTAGGGCA	GACGAGAACC	TGACACACGA	2340
AGGCTGGTTA	AGACAAATGA	CTTGATTCCT	TGAGGTCCGT	AGATTTCCAA	ATCTGTCTGC	2400
TCTTCATTGG	CCTGAAAGGC	ACGGCTAGAA	AGGAAACCTG	GCAAACCAAA	AATGTGGTCT	2460
CCATGCAGAT	GGGTAATAAA	GATTTTGCTG	ACCTTACGTG	GTGCAATTGT	GGTTTCCAGA	2520
ATGCGATTTT	GCGTACCTTC	TCCACAGTCA	AAGAGCCAAA	CTTCGTTAAT	CTCATCCAAA	2580
AGTTTCAGGG	CGAGACTTGA	AACGTTGCGG	GCTTTAGAGG	GCTGACCAGC	CCCCGTCTCT	2640
AAAAATTGAA	TATCCATTCTG	ATACTTTCTA	ATTAATCAAT	ATATAACATG	GCTGTGCGGT	2700
TTTCCGATCG	GAAATAGCGT	TTGCCAGAAA	AAGCAGCAGC	TTCTTGCAAT	AAATCCTCTT	2760
GGCTGTAGCC	TTTGAGACGT	TTTCGACCAT	CAGCCAATCT	TTCCAAATCA	GTCAAAGCTG	2820
TGAGACTTTC	TAGGCTGATA	ACTTCCTCGT	CCTCGACAGG	CTTCATGTAA	ATCTTACCAG	2880
ACTCTTCAAA	GACTAATTGA	TGGGGGAAAA	TTTGCGCAAT	TTCAAAGAGC	AAGTCATCCG	2940
AGATTTTCTC	CTCATTTTCA	AAGAAAATCC	GACCAAGGCC	GTCAC TCTCA	TAACAAAAAC	3000
CAAAGGATTT	ACCAGACAGA	TTAAGCCGAA	TAAAAGGCTT	ATTTTCTAGG	GTGAAACTTG	3060
GCTCAGTATT	GTAAAGATTC	AGTTCCTGAC	TGAGTTCTGC	AAAATAATCC	GTCGCAGCCT	3120
GAGGACTCTT	TTTCTGATAG	AGTTC TGCAA	AGTAGGCATT	AACAACACTT	GGCGGAGGTG	3180
TAATAAGTGT	TAACTGCTCC	TGATCTGTTT	TACCAGCTAG	AAGCTGATCC	AGATAGACCT	3240
TGTCCAGACT	TGTATAACCT	CCATACTTTA	GAGCCAAAGT	TTTAATATCA	GTCATAAAAT	3300

454						
TCTTCTAACC	TCCATTTATT	TTTCTCGGAA	ATGTAGCCTG	TAATCACTTC	GCCGTCTTCC	3360
TGATAATCAC	GTTCTTCCAG	AATTGCAACA	CTCTCTAAAT	CATGAATCTT	GTAGGACTTT	3420
GAAAAAGGCA	CTCGCAGGGT	AAATGCTTCA	AAAATTTCCCT	TAATCTTATC	TAGCAATAAT	3480
GCTTGCAAGT	TTTCACGACT	GTCCTCAGAC	TTGGCAGAAA	TGAGGGTATA	TGGCGTTTGG	3540
GTAGGCGTGA	AATCCTCCAC	CAAATCCGCT	TTATTATAAA	GCGTCAAGTG	AGGAATATCT	3600
TCCATGTCCA	GGTCTTTCAT	GATGGAGAGA	ACCGTTTTTT	CATGCTCCTC	GTGGTAAGGA	3660
TTGCTAGCAT	CGATAACATG	AACCAGAAGG	TCCACATGCT	TGCTTTCTTC	CAAGGTTGAC	3720
TTGAAACTGG	ACACCAACTC	TGTCGGCAAA	TCTTGATAAA	AGCCAACGGT	ATCTGTCAAA	3780
GTTACTTGGA	GATTGCCTCC	CAGATGAATA	CTCTTGCTTG	TCGCATCCAG	AGTCGCAAAG	3840
AGCTCATCTG	CTTCATACTG	GGTCTTACTG	GTCAAGATGT	TCATGATAGT	TGATTTCCCA	3900
GCATTAGTAT	AACCAATCAA	ACCAATCTTA	AAAGTGCTAG	ACTCCAAACG	TTTTTCTCTG	3960
ACAGTCGCAC	GATTTTTCTC	AACCACCTTG	AGCTGGCGCT	CGATATCCGT	GATTTGATTG	4020
CGAACGCTAC	GACGGTTCAG	CTCCAGCTGG	CTTTCACCAG	GACCACGGGA	ACCAATTCCC	4080
CCTgCCTGAC	GGCTGAGCAT	AATCCCCTGA	CCAACCAAGC	GAGGCAAAAG	GTATTTGAGT	4140
TGGGCTAGGT	GGACTTGAG	CTTCCCTTCA	TGGCTTCGAG	CCCGCATGGC	AAAGATATCC	4200
AAAATCAACT	GCATACGGTC	AATGACCTTA	ACACCGAGAA	CTTCCTCTAG	ATTGACATTC	4260
TGCCTTGGGG	TCAGACGATT	GTTGACGATG	ACAGTAGTGA	TTTCTTCTGC	ATCCACCATA	4320
AGCGCAATCT	CTTCCAACCT	ACCAGAGCCG	ACGAAGGTCT	TGGAATCATA	TTTTTCACGT	4380
TTTTGTCTGT	AGCTATCTAC	AACGACTGCC	CCTGCCGTTT	TCGCTAAACT	AGCCAATTCT	4440
TCCATGGAGA	GGTCAAAACT	GTCCATACCC	TGCAATTCCA	CACCAATCAG	CAGGACTCGC	4500
TCCTCTTTTT	TCTCCGTTTC	AATCATCTAA	AAACTCCTCT	ATCTGGCTTA	AAATGCGGTC	4560
TTGTACACCA	GATTCTCCAA	TCTGATAAAA	GGTGACCTGC	ATGCGATTAC	GGAACCAGGT	4620
CAGCTGACGC	TTGGCAAAAC	GACGAGTCGC	CTGTTTAAGA	CTCTCACTAG	CTTCCTCCAA	4680
GGTCTGCTCT	CCACGGAAAT	AAGGAAAGAG	TTCTTTATAG	CCAATTCCTT	TAGCAGCCTG	4740
TACATTAGGG	GAATGGTCAA	ACAGCCACTT	GGCCTCATCC	AAAAGCCCAG	CCTCAAACAT	4800
CAAATCCACT	CGGTGGTTGA	TACGCTCATA	AAGTTGACTA	CGTTCATCAT	CCAAGCAGAT	4860
AATCAGCGGT	TCATACAAGG	TCTCTTGATT	TTCCAAATCC	TGACCAAAAT	GGGCAATTTT	4920
TAAGGCACGC	ATAGCACGAC	GACGATTAAA	CTGGGGAATC	TCAAGGCCTG	CTTGATCCAC	4980
CAAATGGGCT	AATTCCCTCAT	CTGAATATGG	CTCCAAACTA	GCTCGATAAG	CTAAAATCTC	5040
CTCATGAGGA	GTCTCCCCAC	CTAGGTGGTA	ACCTTCTAGC	AAGCTCTGGA	TATAAAGTCC	5100

455

AGTCCCACCG GCGATAATGG CTAGCTTGCC ACGGTTGTGA ATACCCTCAA TAGTCATCTT	5160
AGCTTCTGAA ACAAATCAA AAGCCGAGTA AGACTCGGTT ATCTCTCTAA CATCGATTAA	5220
ATGATGAGGA ACAGCTGCCT GCTCTTCTGG ACTAGCCTTG GCCGTCCCAA TATCAAGTCC	5280
TCGATAGACT TGCTGGCTAT CTCCACTAAC CACTTCGCCA TTAAAACGCT TTGCGGGG	5338

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19446 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

CGGAAACCCA TCTAGTCTCC ATCGTTTGGG AGACCAAGCA ACACGAATCT TAGATGCTTC	60
TCGCCAACAG ATTGCAGATT TAATCGGTAA GAAAAGCGAT GAAATCTTCT TTACCTCGGG	120
TGGAACAGAA GGGGATAACT GGCTTATCAA GGGTGTGGCC TTTGAAAAAG CTCAGTTTGG	180
CAAGCACATC ATTGTTTCAG CCATTGAACA TCCAGCAGTC AAAGAGTCAG CCCTCTGGTT	240
GAAAAGTCAA GGATTGAAG TGATTTTGC TCCAGTTGAT AAGAAAGGCT TGGTCGATGT	300
TGAGGCGTTA CAGGTTTGAT ACGGCATGAT ACAATCCTCG TTTCCATCAT GGCTGTGAAC	360
AATGAAATCG GCTCTATCCA ACCTATTGAG GCTATTTTTCAG AATTCCTGGC AGACAAGCCG	420
ACTATTTTCT TCCACGTGA TCGGGTTCAG GCGCTTGCCA AAATTCGAC TGAAAAGTAT	480
CTGACAGAAC GGGTGGATTG CGCGACTTTC TCTAGTCACA AGTTCACCGG GGTTCGAGGT	540
GTGGCTTTG TCTATATCAA ATCTGGCAAG AAGATTACAC CTCTTCTTAC AGGTGGTGGC	600
CAGGAGCGAG ATTATCGTTC GACAACTGAA AATGTGGCAG GGATTGCAGC GACAGCCAAG	660
GCCCTCCGTT TGTCTATGGA AAAGCTAGAT ATCTTTAGGA GCAAGACTGG GCAGATGAAG	720
GCAGTGATTC GCCAAGCTCT TCTGAACTAT CCGGATATTT TTGTCTTTTC AGATGAGGAA	780
AACTTTGCAC CTCATATTCT GACTTTTGA ATCAAAGGTG TTCGAGGTGA AGTCATCGTT	840
CACGCCTTTG AAGACTATGA TATTTTCATC TCAACAACCT CAGCTTGTTT ATCTAAGGCA	900
GGAAAACCAG CCGGTACCTT GATTGCCATG GGAGTGGACA AAGATAAGGC CAAGTCAGCT	960
GTGCGTCTTA GCCTAGACTT GGAAAATGAT ATGAGTCAGG TCGAGCAGTT TTTGACCAAG	1020
TTAAAATGTA TTTACAATCA AACTAGAAAA GTAAGATAGG AGCATTCATG CAGTATTCAG	1080
AAATTATGAT TCGCTACGGA GAGTTGTCAA CCAAGGGTAA AAACCGTATG CGTTTCATCA	1140

456						
ATAAACTTCG	TAATAATATT	TCGGACGTTT	TGTCTATCTA	TACCCAAGTT	AAGGTAACAG	1200
CAGATCGCGA	CCGTGCCCAC	GCTTACCTCA	ATGGAGCTGA	TTACACAGCA	GTTGCAGAAT	1260
CTCTCAAACA	AGTTTTTGGA	ATTCAAAACT	TTTCTCCTGT	TTATAAGGTT	GAAAAATCTG	1320
TAGAAGTTTT	GAAGTCTTCT	GTCCAAGAGA	TTATGCGGGA	CATCTACAAG	GAAGGTATGA	1380
CCTTTAAGAT	TTCTAGCAAG	CGTAGCGACC	ACAACTTTGA	ACTTGATAGT	CGTGAACCTCA	1440
ACCAAACACT	TGGAGGGGCT	GTATTCTGAAG	CCATTCCAAA	TGTGCAAGTT	CAAATGAAAA	1500
GTCTTGACAT	CAATCTTCAG	GTGGAGATTC	GTGAAGAAGC	AGCCTATCTT	TCTTATGAAA	1560
CCATTCTGTG	GGCTGGTGGT	TTGCCAGTTG	GAAGTTCAGG	TAAAGGGATG	CTCATGTTGT	1620
CAGGAGGGAT	TGACTCACCT	GTAGCAGGTT	ATCTTGCTCT	TAAGCGTGGG	GTGGATATCG	1680
AGGCAGTTCA	CTTTGCTAGT	CCACCATATA	CTAGTCCTGG	TGCCCTCAAG	AAAGCGCAGG	1740
ACTTGACCCG	TAAATTGACC	AAGTTTGCGG	GAAATATCCA	GTTTATAGAG	GTGCCTTTCA	1800
CAGAGATTCA	AGAGGAAATC	AAAGCCAAAG	CGCCAGAAGC	TTATTTGATG	ACTCTAACTC	1860
GTCGCTTTAT	GATGCGGATT	ACTGACCGTA	TTCGTGAGGT	ACGAAATGGT	TTGGTTATCA	1920
TCAATGGGGA	AAGTCTAGGT	CAAGTAGCCA	GCCAAACCCT	TGAAAGTATG	AAGGCTATCA	1980
ATGCTGTTAC	CAACACTCCC	ATCATTCGTC	CTGTGGTTAC	CATGGACAAG	TTGGAATCA	2040
TTGACATCGC	CCAGGAAATC	GATACCTTTG	ACATTTCAAT	CCAACCGTTT	GAAGACTGTT	2100
GTACCATTTT	TGCACCAGAT	CGTCCAAAAA	CAAATCCTAA	AATTAAGAAT	GCGGAGCAGT	2160
ACGAAGCGCG	TATGGATGTT	GAAGGCTTGG	TTGAGCGAGC	AGTGGCTGGA	ATCATGATTA	2220
CTGAAATCAC	ACCTCAAGCC	GAAAAAGATG	AAGTTGATGA	CTTGATTGAC	AATCTGCTCT	2280
AATTTCAGAAA	ATCCAAAAGA	ATAGCGAAAA	TCAGTAAAAA	AAGTTAGTTT	TTTCTCTAAA	2340
AACAGGTAAA	AAACTAAGTT	TTTTTATTTT	TATGATATAA	TGATATAAAA	TTTTGAATAT	2400
AGAGAGTTTT	CTGACAATGA	ATCAATCCTA	CTTTTATCTA	AAAATGAAAG	AACACAAACT	2460
CAAGGTTCCCT	TATACAGGTA	AGGAGCGCCG	TGTACGTATT	CTTCTTCCTA	AAGATTATGA	2520
GAAAGATACA	GACCGTTCCT	ATCCTGTTGT	ATACTTTCAT	GACGGGCAAA	ATGTTTTTAA	2580
TAGCAAAGAG	TCTTTCATTG	GACATTCATG	GAAGATTATC	CCAGCTATCA	AACGAAATCC	2640
GGATATCAGT	CGCATGATTG	TCGTTGCTAT	TGACAATGAT	GGTATGGGGC	GGATGAATGA	2700
GTATGCGGCT	TGGAAGTTCC	AAGAATCTCC	TATCCCAGGG	CAGCAGTTTG	GTGGTAAGGG	2760
TGTGGAGTAT	GCTGAGTTTG	TCATGGAGGT	GGTCAAGCCT	TTTATCGATG	AGACCTATCG	2820
TACAAAAGCA	GACTGCCAGC	ATACGGCTAT	GATTGGTTCC	TCACTAGGAG	GCAATATTAC	2880
CCAGTTTATC	GGTTTGGAAT	ACCAAGACCA	AATTGGTTGC	TTGGGCGTTT	TTTCATCTGC	2940

457

AAACTGGCTC	CACCAAGAAG	CCTTTAACCG	CTATTTTCGAG	TGCCAGAAAC	TATCGCCTGA	3000
CCAGCGCATC	TTCATCTATG	TAGGAACAGA	AGAAGCAGAT	GATACAGACA	AGACCTTGAT	3060
GGATGGCAAT	ATCAAACAAG	CCTATATCGA	CTCGTCGCTT	TGCTATTACC	ATGATTTGAT	3120
AGCAGGGGGA	GTACATCTGG	ATAATCTTGT	GCTAAAAGTT	CAGTCTGGTG	CCATCCATAG	3180
TGAAATCCCT	TGGTCAGAAA	ATCTACCAGA	TTGTCTGAGA	TTTTTTGCAG	AAAAATGGTA	3240
AGTTAAGAAA	GGAAAAACG	AAATGCATAT	TGAACATCTT	AGCCACTGGA	GTGGTCATCT	3300
TAACCGTGAA	ATGTACCTTA	ACCGTTATGG	ACATGGTGGG	ATTCCAGTTG	TGGTCTTTGC	3360
TTCATCAGGT	GGTAGTCACA	ACGAATACTA	TGATTTTGGC	ATGATTGATG	CCTGTGCTTC	3420
CTTTATCGAG	GAAGGCCTTG	TCCAGTTCTT	TACCCTATCT	AGTTTGGATA	GTGAGAGCTG	3480
GTTGGCTACT	TGGAAAAATG	CTCATGACCA	AGCGGAAATG	CACCGTGCCT	ACGAACGTTA	3540
TGTGATTGAG	GAGGCCATTG	TTTTATCAAG	CACAAGACAG	GTTGGTTTGA	TGGCATGATG	3600
ACGACAGGTT	GCTCTATGGG	AGCCTATCAT	GCACTCAATT	TCTTCCTCCA	GCATCCAGAT	3660
GTCTTTACCA	AAGTGATTGC	TCTCAGTGGT	GTTTACGACG	CACGTTTCTT	TGTCGGTGAT	3720
TACTACAACG	ATGATGCTAT	TTACCAAAAC	TCGCCAGTAG	ATTATATTTG	GAACCAAAAC	3780
GACGGCTGGT	TTATTGACCG	TTACCGTCAG	GCAGAGATTG	TGCTGTGTAC	GGGGCTTGGA	3840
GCCTGGGAAC	AAGATGGTTT	GCCATCCTTT	TACAAGCTCA	AAGAAGCCTT	TGACAAGAAA	3900
CAAATTCAG	CCTGGTTTGC	TGAATGGGGA	CATGATGTCG	CCCATGACTG	GGAATGGTGG	3960
CGTAAACAAA	TGCCTTATTT	CCTCGGTAAT	CTCTATTTAT	AAAAGGAGTT	ACCTATGAAT	4020
TACCTTGTTA	TTTCTCCCTA	CTATCCACAA	AACTTTCAAC	AGTTTACCAT	CGAACTAGCT	4080
AATAAAGGCA	TCACAGTCTT	GGGAATTGGT	CAAGAGTCTT	ACGAGCAATT	GGATGAGCCC	4140
TTGCGCAATA	GCTTGACCGA	GTATTTTCGT	GTTGATAATC	TTGAGAACAT	AGATGAAGTC	4200
AAACGTGCAG	TTGCTTTTCT	CTTTTATAAA	CATGGTCCAA	TTGGCCGCAT	CGAGTCTCAC	4260
AATGAATACT	GGCTTGAGCT	AGACGCAACA	CTCAGAGAAC	AATTCAATGT	TTTTGGTGCC	4320
AAACCAGAGG	ATCTCAAAAA	GACGAAATAT	AAGTCTGAAA	TGAAGAAACT	TTTCAAAAAA	4380
GCAGGTGTTT	CTGTGGTACC	TGGAGCTGTT	ATCAAGACGG	AAGCAGATGT	TGATCAAGCA	4440
GTGAAAGAAA	TCGGTCTTCC	AATGATTGCC	AAACCTGATA	ATGGAGTGGG	AGCAGCCGCA	4500
ACCTTTAAAC	TTGAGACAGA	AGACGATATC	AATCACTTCA	AGCAAGAATG	GGACCATTCA	4560
ACCCTTTATT	TCTTTGAAAA	ATTTGTCACT	TCCAGCGAAA	TCTGTACCTT	TGACGGGCTC	4620
GTGGACAAGG	ATGAAAGAT	TGTCTTCTCA	ACAACCTTTG	ACTACGCCTA	TACACCGCTT	4680

458

GACCTCATGA	TTTATAAGAT	GGACAATTCT	TATTATGTGC	TCAAGGATAT	GGATCCTAAA	4740
CTGCGCAAGT	ATGGGGAAGC	AATTGTCAAA	GAATTTGGTA	TGAAAGAACG	GTTTTTCCAT	4800
ATTGAGTTCT	TCCGTGAGGG	GGACGATTAT	ATTACCATCG	AGTACAATAA	CCGCCCTGCA	4860
GGTGGTTTTA	CCATTGATGT	TTATAACTTT	GCTCATTCCT	TGGACCTTTA	TCGTGGCTAT	4920
GCAGCTATTG	TCGCAGGAGA	GGAGTTCCCG	CGGTCAGACT	TTGAAACTCA	GTATTGTTTG	4980
GCTACTTCTC	GCCGTGCAAA	TGCTCACTAT	GTTTATTTCAG	AAGAGGATTT	GCTTGCCAAA	5040
TATAGCCAGC	AGTTCAAGGT	TAAAAAAGTC	ATGCCAGCTG	CCTTCGCGGA	ACTTCAAGGA	5100
GATTACCTGT	ATATGCTGAC	CACTCCGAGT	CGACAAGAAA	TGGAGCAGAT	GATTGCAGAT	5160
TTCGGACAAC	GTCAAGAATA	AGAACTATCG	GATTAAGGAA	ATTAACCTCC	TTAATCCTTT	5220
TGTTTTGTCT	GATAAAAAAT	AAGAGCATCC	CAACAAGGTA	GCTATCATAA	AACTTGTTTCG	5280
ATAACTATTT	GAAGCAGGAT	TAGGTGGTCA	GAAATTAAAT	TTTAATATTT	CAATTGAGTC	5340
ATAGTATTGT	GTTTGCGTAT	CCTTAAATCA	GCTAAAAGGA	TCCATGACGA	CACCTATACG	5400
ATATAGTTTT	CAAGATACCA	AACAAGTCTA	TTAATATTCA	ATGAAAATCA	AAGAGCAAAC	5460
TAGGAAGCTA	GCCGCAGGTT	TCTCAAAACA	CTGTTTTGAG	GTGTGGGATA	GAAGTGACAG	5520
AGTCAGTATC	ATATACTACG	GCAAGGTGAA	GCTGACGTGG	TTTGAAGAGA	TTTTCGAAGA	5580
GTATAAAATA	TTCAGGTGAC	GCATAGATAT	AGTTAATTGA	AGCTTTGTTT	GAAATCTGAT	5640
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AGCTTGACG	TGAAAGTGAT	GCTGAATTTT	TAGGGATTCC	TTATGAGGGA	GTTTTTCCAA	5880
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TGTCGACCGC	AGGTAAAAAT	GGACAGTTCC	GTACACCTCG	TCACATCATC	GATATGATGG	6240
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CAGATAATAT	CAATCATTTT	CATAATCAGA	TGTTTCATGG	AAATGATACG	GATACGACTA	6420
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459

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TAAAAAAAAT ACTTCTCCCC CTCCCCCAC TAGCCCTCCA AAATGAGTTC GCAGACTTTG	8220

460

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GCTTGAAATT	TAGTATAATA	TAGCTAAACT	ATTTGTTTAA	AGTGAGAAAA	AAATGGGAAA	8340
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AAAACGTGAG	ACTGCAGCGC	AACGGCAAGA	TGTGCCTTTC	CATATTGATC	AATTATCTGA	8940
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CAAGTCCATT	TTTGATTATT	TTGATGCAAG	AATTGTAGGC	TTAACAGCTA	CTCCGCGTCA	9840
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461

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GCAGATGATT GGTGAGGAA CCCGTCTATG TAAAGATTTA TTTGGACCTG AGCAGGATAA	10500
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462

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463

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464

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465

TCCAACCTAC	GGCATAATGC	TCTATCAGGA	GCAGGTTATG	CAGGTTGCCC	AGCGACTTGC	17160
CGGATTTAGT	CTTGGGAAAG	CCGATATTTT	CGCTCGGGCT	ATGGGGAAAA	AGGATGCCTC	17220
TGCCATGCAT	GAGATGAGGG	CTTCCTTTAT	TCAAGGTTC	TTAGAAGCTG	GTCATACTGT	17280
GGAAAAAGCA	GAGCAGGTCT	TTGATGTTAT	GGAGAAGTTT	GCAGGTTATG	GTTTTAACAG	17340
GTCACACGCC	TATGCCTACT	CAGCCTTGGC	CTTCCAGTTG	GCTTATTTCA	AAACGCATTA	17400
TCCAGCCATT	TTTTATCAGG	TCATGTTAAA	TTCTTCCAAC	AGTGATTACT	TAATAGATGC	17460
ACTTGAAGCA	GGTTTTGAAG	TAGCCTCTCT	ATCCATCAAC	ACCATTCCTT	ATCACGATAA	17520
AATTGCCAAC	AAGGCCATCT	ATCTAGGTTT	GAAATCCATT	AAAGGAGTCA	GTAATGATTT	17580
AGCTCTCTGG	ATTATTGAAA	ATAGACCTTA	TTCTAACATT	GAAGATTTTA	TAGCTAAATT	17640
ACCTGAGAAT	TATCTGAAAC	TTCTCTGCT	AGAACCTTTG	GTAAAAGTTG	GTCTTTTCGA	17700
TTTCA'TTGAA	AAAAATCGTC	AAAAAGTATT	TAATAACTTA	GCTAATCTAT	TTGAATTTGT	17760
GAAAGAGTTG	GGAAGTTTGT	TTGGAGATGC	TATTTATAGT	TGGCAGGAAT	CGGAAGATTG	17820
GACGGAACAA	GAAAAATTTT	ATATGGAACA	AGAGCTTTTA	GGGATAGGTG	TCAGCAAACA	17880
TCCACTACAA	GCTATTGCAA	GTAAGGCTAT	TTACCCGATT	ACCCCAATCG	GAAATTTGTC	17940
AGAAAAATAGC	TATGCTATTA	TCTTGGTTGA	AGTTCAGAAA	ATAAAAGTGA	TTCGTACCAA	18000
AAAGGGTGAA	AATATGGCCT	TCTTACAGGC	AGATGATAGT	AAGAAAAAAT	TGGATGTCAC	18060
TCTCTTTTCA	GACTTATATC	GTCAGGTTGG	ACAGGAAATA	AAAGAGGGAG	CCTTCTACTA	18120
TGTAAAAGGA	AAAATACAAT	CACGTGATGG	CCGTCTGCAA	ATGATGTCAC	AAGAAATAAG	18180
AGAAGCAGTT	GCTGAACGCT	TTTGGATACA	GGTGAAAAAT	CATGAATCGG	ATCAAGAAAT	18240
TTACACGATT	TTAGAACAAT	TTAAAGGCC	AATCCCAGTC	ATCATCCGGT	ATGAAGAGGA	18300
ACAGAAAACC	ATCGTTTCTC	CCCATCATTT	TGTAGCTAAA	TCCAATGAAT	TAGAGGAGAA	18360
ATTGAATGAA	ATCGTTATGA	AAACGATTTA	TCGCTAAAAA	TACGGAAAAAT	AGAAGAATTT	18420
TCAACGTAAA	TGTGGTATAA	TCAGTAAGAA	TGTTAAAAGA	AAAAGGAGCA	TAACCAATAT	18480
GAAACGTATT	GCTGTTTGA	CTAGTGGTGG	AGACGCCCTT	GGTATGAACG	CTGCCATCCG	18540
TGCAGTTGTT	CGTCAAGCAA	TTTCAGAAGG	AATGGAAGTT	TTTGGTATCT	ATGACGGATA	18600
TGCTGGTATG	GTTGCCGGTG	AAATTCATCC	CCTAGATGCA	GCTTCAGTAG	GGGACATCAT	18660
TTCTCGTGGT	GGTACTTTCC	TTCACTCAGC	TCGTTACCCA	GAGTTCGCTC	AACTTGAAGG	18720
GCAACTTAAA	GGGATTGAGC	AATTGAAAAA	ACACGGAATT	GAAGGTGTAG	TTGTTATCGG	18780
TGGTGACGGA	TCTTACCACG	GCGCTATGCG	TTTACTGAA	CATGGCTTCC	CAGCTATTGG	18840

466

TCTTCCAGGT	ACAAATCGATA	ACGATATCGT	TGGTACTGAC	TTTACAATCG	GTTTTGACAC	18900
AGCGGTTACT	ACTGCCATGG	ACGCTATCGA	TAAGATTCGT	GATACATCAT	CAAGTCACCG	18960
TCGTACTTTT	GTAATCGAAG	TTATGGGACG	TAACGCTGGT	GATATCGCTC	TTTGGGCTGG	19020
TATTGCAACT	GGTGCTGATG	AAATCATCAT	CCCTGAAGCA	GGCTTCAAGA	TGGAAGATAT	19080
CGTAGCAAGC	ATCAAAGCTG	GTTATGAATG	TGGTAAAAAA	CACAATATTA	TCGTCTTAGC	19140
TGAAGGTGTG	ATGTCAGCGG	CTGAATTTGG	TCAAAAACTT	AAAGAAGCTG	GAGATACAAG	19200
CGACCTTCGT	GTAACAGAAC	TTGGACATAT	TCAACGTGGT	GGTTCTCCAA	CTGCGCGTGA	19260
CCGTGTTTTG	GCGTCACGTA	TGGGTGCACA	TGCTGTTAAA	CTTCTTAAAG	AAGGTATCGG	19320
TGGTGTTCG	GTTGGTATTC	GTAACGAAAA	AATGGTTGAA	AATCCAATTC	TTGGTACTGC	19380
AGAAGAAGGG	GCATTGTTTA	GCCTTACTGC	AGAAGGTAAG	ATTGTGGTTA	ACAACCCAGC	19440
TACAAA						19446

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16593 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

TCGTAAATAT	GCTCTGTTTT	TGGATTTTGT	TTCTTAATCT	GTTTGGCAAG	TGCCTTCATC	60
ATAGAAATAG	GACCACACAT	ATAGACGGTT	GCATGTTCCG	GCACTTCTTT	TTGTTCAAAA	120
TTAAGATAGC	CGTCTTTCGT	ACTGTCGATT	AGATGGAGTT	CAAAATTAGG	ATTTTCTGA	180
GCATAGTTAC	GGAGTAAATC	TAGGTAGACT	GCATTTTCAT	CTCCACGGAA	GCTATAGTAG	240
AAGTGAACCT	GTTTATCTAA	AATAGGATGT	TCACGGATGT	AAGAGATGAA	GGGGGTGATC	300
CCAATACCTC	CAGCAATCCA	AACCTGATTT	TCTCGTCCTT	CTTCTATGAT	CATGTGTCCG	360
TAAGCTCTGT	CTAGGGTTAC	TTTGCTGCCG	GCTTGAAGAT	TATCATAGAT	ATTCTTG GTA	420
TGGTCGCCCTG	AAGTTTAAAC	AGTAAAGTAA	AGAGTTTGAC	CATGACCTCC	TGAGATAGAA	480
AAGGGATGCG	GAGCACTTTC	AAAGCCTTCT	TGGAATCT	TTAGAAAGGC	AAATTGTCCT	540
GATTGATAGT	TGAAAGGTCT	GCTAAGATGG	ATTTGAATTT	CTCTAGTATC	GTGATTTAAG	600
CGTTTGAGAT	GGGTAATTTT	CCCTAGATAG	GGGAAGGAAA	TCTTTTGATA	TAGAAAAATG	660
ATATAAAAAC	CAGCTAGTAA	GCCTAAAAGG	GCATAGCTAC	CAACAAGAAA	ACTTAGAAGA	720
TTAAATGTAA	GGAGACGATT	GCCCATTATC	ATGTAGATGT	GAAAGAGTCC	TAAATATAG	780

467

GCTAGGTAAA CCAGGCGGTG AATCCATCGC CAAGCTTCGT ATTGGATGTA TTTGCCTAAA	840
TAGGCGACAA GGATGATGCT GGCAAAGATA TAGATGGCAA GATTGCCAAA CTGAGCAGCT	900
AAGCGAGAGC CCCACAAACC GCCCATACTA AAGTTATGAA AGATTAGTAG GATGATTGAG	960
AGAAAGGCTG TGAATTTGTG GACGGTGTAG ACCTTCTCCA AACTGTGAAA CCAGCTTTCT	1020
AGTAGTGGGA GACGAGTGGC TAGGATAAAA GTCAGAGATA GGCTTGTAA AGCTAGTCCT	1080
GGAATCATGA ATTGGGGAGA AGTGTTTCATC CAAGTCAAAA GAGTCAAGAT AAAACTAGCT	1140
ATGATAAAGA GTAGTCCTTT GACTGATTTC ATAGAAAATT CCATTTCATT TAGATTTCTGA	1200
TTTGTGTGTA ATAAATTTGT TACATTTTAT CATAGAAAAT GTATGGTGTC AAATTGAGGT	1260
CTATAAATAT CTAATCTCAT CAAAAAATC TCCAATTGAA CTGGAGAGTG GCTGTTTATA	1320
CTCAATGAAA ATCAAAGAGC AACTAGGAA GCTAGCCGCA AGTTGCTCAA AACACTGTTT	1380
TGAGGTTGCA GATAGAGCTG ACGTGGTTTG AAGAGATTTT CGAAGAGTGT TATTCTGCAG	1440
CTTGTGCGCA ACGTTTGGCT AGCATATGAG ACAGGCTAGA AATTGCTAGG TTAAAGCTGA	1500
AGTAGATGAG GGCAATCAGG ATGTAAAGAC TGAAGACCTG CTCTGGTTCG AAATAACGGC	1560
CCATGAGAAT TTGGCTGGCT CCAAAGAGTT CTTGTAGGGC GATAACAGAG TAGAGGAGAC	1620
TGGTATCCTT AATCACGTA ACAAACTGAG AAATGATGGC TGGTAGCATT TTGCGGATGG	1680
CTTGTGGGAG AATGATGTAG TAGAGGATTT GGGCTGAGGT GAAGCCTTGT GACATTCCTG	1740
CTTCGTACTG TCCCTTGTCT ACGGCATTGA GACCGCCTCG AATAATCTCA GCCAAGGCTG	1800
CTGATGTAAG GAGAGTAAAG GCTGTAATAC CTGCTGGTGT GGATTTTCATT TTGAACACCA	1860
AAAAGATAGT AAAAATCCAG AGAAGGTTGG GAACGTTGCG CACAACTCG ATATAAATAC	1920
TGGAAATAAT GCGTAAGACA GGATTTTTCG CATTTCTCGT GACAGCTAGC ACCGTACCGA	1980
TGATAGTAGA GAGGATGATG GCAATCAGAG AAATATAGAG GGTCAGCCA AATCCTTTAA	2040
AGATAAAGAC TAGGTTATCT GGGGTAAAA CTCTAAAAAT AGATTCCATA GTAACCTCCT	2100
AAAGTGAATA GGCTTTTTTG TTGGCTTGCT CCATCTTGCG ACCAACTGG GCAACAGGGA	2160
AGCATAGAGC AAAGTAGAGA AGAGCAGCAC CTAATAAGGC TGGTATATAG TTTCCGTTGA	2220
GAGCCGACCA AGACTTAGTC ACAAACATCA AGTCTACTCC AGAGATGATA GCTACAGTAG	2280
AGGTGTTCTT GATGAGGTTA ACAATTTGGT TGGTCAATGG AGGGAGAATG ATGCGGAAGG	2340
CCTGAGGCAA GATAATCAAG CGCATGGCAC TGATATAGGT AAAACCTTGC GACAAGGCGG	2400
CCTCCATCTG ACCACTAGGA ATAGACTGAA TCCCTGAACG AATAACCTCA GCGATATAAG	2460
CGCCGTGATA GAGTCCCACG CAGAGAACGG CTGTCCAATA AATTGGAATC ATGATGATAT	2520

468

GGTCACTGAT	AAGAGGTAGG	CCATAAAAAA	CAATAACAAA	CTGCACCAAG	AGGGGAGTAT	2580
TTTGGTAAAA	TTCAACAAAG	ATGCGAGCTA	AAATGCGTAA	AATTGGACGT	TTACTGGTTG	2640
ACATGGCACC	AAAGAAGATG	CCCAAAACCA	TAGCGAGGAT	AAAGGAACCA	ACCGCTAGGG	2700
CAAGGGTGAA	GAGGAAACCA	TTGAAAAATT	GTCCAAAATC	CTGAAAATAG	GCTGTCCAAG	2760
ATGATAAATC	TGTCATGGGG	TGTCCTCCTT	AATCTGCAGT	ATGGCTAGAT	GGTTTGAGCT	2820
TGTAACGGTC	ATAAAGTTTC	TGCAAACTAC	CATCCTTGCT	CCATTTAGTA	ACCAAGTTAT	2880
CAAGATAGTC	GTTGAGCTCT	GTATTTGATT	TCTTGGTAAAC	AATACCGTAG	TCAGATGGCT	2940
TGAAACTATC	ATCTAGTAGT	GCTGTCCGTT	TACTAGTGTA	GCCAGATAGA	ATAGAGCGGT	3000
CAACGGAAAA	GGTATCGATA	CGATGAGCGT	GCAGGGAAGT	AATCAATTCT	GGGTAGGAAC	3060
CAAGTTCGAC	GAATTTAAAC	TTCAGACCTT	TCTTTTACC	CAGTTCAGTA	ATCAGGCGTT	3120
GGGTGATAGA	ACCTTGGGCG	ACTCCGATGG	TTTGGCCGTT	TAGGTCCTCA	ATCTTTTGA	3180
TTTTGGCAGA	TTTATTGACC	AAAAATCCAG	AAGCGTCTGT	GTAGTAGGGA	CTGGTAAAGT	3240
TGTAGAGTTT	TTTGCGTTCG	TCCGTGATGG	TAAAGGTCGC	GATATCCATA	TCGACCTGTT	3300
CATTGTCTAG	AAGGGGGCCG	CGGGTTTGTG	CTGTAACCGG	CACATAGCGA	ATCTTGACCT	3360
TGAGTTCATC	AGCTACCATC	TTGGCCAAGT	CGGTTCGAT	ACCAGAATAA	GTACCGGTCT	3420
TGGGATCTTT	GTAACCAAAA	TTGGGAACGT	CTTGTTTGAC	ACCGACAACC	AGTTCGCCTC	3480
TTTTTTGAAT	GTCTGCGATA	CTTGTATCAG	CCTGGACTGG	TTTGGCAGCA	GCAAGGCCGA	3540
AAAGGCTAAT	CAATAATGCT	GATAAAAAGA	ATTTTTTTTC	ATAGGCGCCT	CCTTATTTGA	3600
CTTTGTCACT	TTCGTGGTTG	ATAATTTTGC	TGAGGAATTG	TTGGGCACGA	GGTTCGCTTG	3660
GATTGTCAAA	AAAGTTATCG	ACATCTGTCT	TATCTACTAA	AACTTCTCCG	TCGGCCATAA	3720
AGATAATGCG	GTCCGCAACC	TCTCGAGCAA	AGCCCATTTT	GTGGGTAACG	ATGATCATGT	3780
TCATCCCATC	ATGCGCCAGT	TTCTGCATAA	CTGCTAGAAC	ATCTCCGATA	GTCTCAGGAT	3840
CAAGAGCAGA	TGTTGGTTCA	TCAAAGAGGA	GGAGTTCGGG	ATGCATAGCA	AGACCACGAG	3900
CGATGGCGAT	CCGCTGTTTT	TGTCCACCAG	ATAGCATGGC	GGGATAGGAA	TCTTTCTTGT	3960
CCCACATATT	TACAAATTC	AGATATTTTT	GGGCGGTTTT	TTCAGCTTCT	TTTTTATCAA	4020
TTCTTAGAAC	TTCAATGGGT	GCAAGCGTTA	CGTTTTCTAA	CACAGCTTTG	TGTGGATAAA	4080
GGTTAAAATG	TTGAAAAACC	ATGCCGACTT	CCTTGCGAAG	AGGTACCAAA	TCTTTCTGGC	4140
TGGCACCAGC	AACTTGGTGC	CCATTGACTA	GGAGACTTCC	TTTGTCACAA	GTCTCTAAAC	4200
CATTGATCGT	ACGGATAAGA	GTGGACTTCC	CAGAGCCAGA	AGGTCCAAGC	AGGACAACAA	4260
CTTGTCCTTT	TTCAAAACCG	AGATTGATGT	TGCGGAATGC	GTGGTAGTCT	CCGTAATATT	4320

469

TTTCGACGTT	TTTAAATTCT	ACTAAAGCCA	TGAGAGATCT	CTATTGTGTT	ATATTTTATA	4380
ACACGGTTCT	ACAATAAAG	AATGTTCTTG	TCAAATCATA	TCTGAAAAAA	TTCACATAG	4440
TGAAATAAGA	ACAGGAAAA	TCGATCGGGA	CAGTCAAATC	GATTTCCTAAC	AATATTTTAG	4500
AAGTAGAGGT	GTACTATTCT	AGTTTCAATA	TACTATAAAA	TGTATATAAA	AAGCAATCTG	4560
GATAGAGAAA	ACGTCTAAAT	CATGTTATAA	TGAAGCAATA	GAATTCTTAG	AAAGAGTGGA	4620
TGTCTTTTGT	ATAACACCTA	CTTATGAATG	GCAGTTTGCC	CTGCAGGTAG	AAGATGCGGA	4680
TTTACAAAAG	ATAGCCAAGA	AGGCTGGACT	GGGTCCTGAG	GTGGCTCGGT	TATTGTTTGA	4740
GAGAGGGATT	CAGAACCAAG	AAAGTCTGAA	GAAGTTTTTA	GAACCTTCCT	TGGAGGACTT	4800
ACATGATGCT	TATCTGCTCC	ATGATATGGA	CAAGGCAGTG	GAGCGGATTC	GTCAGGCTAT	4860
TGAAGAAGGG	GAAAAATATC	TTGTTTATGG	AGACTATGAT	GCGGATGGCA	TGACTTCGGC	4920
TTCTATTGTG	AAGGAAAGTT	TGGAACAAC	TGGTGCTGAG	TGCCGAGTTT	ACCTGCCAAA	4980
TCGTTTTACC	GATGGCTATG	GCCCTAATGC	TAGTGTAT	AAATACTTTA	TCGAGCAAGA	5040
AGGGATTTC	TTGATTGTGA	CGGTGGACAA	TGGGGTTGCT	GGTCATGAGG	CTATTGCATT	5100
GGCTCAGTCT	ATGGGAGTAG	ATGTCATTGT	GACAGACCAT	CATTCCATGC	CTGAAACCCT	5160
GCCAGATGCT	TATGCTATTG	TCCATCCTGA	ACATCCAGAT	GCGGATTATC	CTTTTAAATA	5220
TTTGGCTGGT	TGTGGAGTTG	CTTCAAGTT	GGCTTGCTGC	CTGTTAGAAG	AAGTGCAAGT	5280
GGAATTGCTT	GATTTGCTCG	CTATTGGAAC	TATTGCAGAT	ATGGTGAGTC	TGACGGATGA	5340
AAATCGTATC	TAGTTCAAT	ATGGTCTGGA	AATGTTGGGT	CATACCCAGC	GCATTGGTCT	5400
GCAAGAAATG	CTGGACATGG	CTGGGATTGC	TGCCAACGAA	GTAACAGAAG	AAACGGTTGG	5460
TTTCCAGATT	GCTCCTCGTT	TGAATGCCTT	GGGTCGCTTG	GATGATCCCA	ATCCTGCCAT	5520
TGATTTGTTG	ACTGGATTTG	ATGATGAGGA	AGCGCATGAG	ATTGCCCTTA	TGATTCACCA	5580
GAAAAACGAA	GAGCGCAAGG	AAATCGTTCA	GTCTATCTAT	GAAGAAGCCA	AGACCATCGT	5640
GGATCCTGAG	AAGAAGGTTT	AGGTCTTGGC	CAAGGAAGGC	TGGAATCCTG	GGGTTCTAGG	5700
AATCGTGGCT	GGTCGTTTAT	TGGAAGAATT	GGGACAGACA	GTCATTGTTC	TTAATATAGA	5760
AGACGGTCGT	GCCAAGGGCA	GTGCTCGTAG	TGTGGAAGCG	GTCGATATTT	TTGAAGCTCT	5820
GGATCCCCAT	CGAGACCTCT	TCATCGCCTT	TGGAGGTCAT	GCAGGTGCAG	CGGGTATGAC	5880
GCTGGAAGTT	GAGCAACTCT	CAGATTTATC	TCAGGTTTTG	GAAGATTATG	TTCTGTAAAA	5940
AGGTGCAGAT	GCTGGTGGCA	AGAATAAGTT	AAACCTAGAT	GAAGAGTTGG	ATTTGGAGGC	6000
ACTTAGCTTG	GAAACGGTCA	AAAGTTTTGA	ACGTTTAGCT	CCTTTTGGAA	TGGATAATCA	6060

470

GAAACCTATT	TTTTATATCA	AGAATTTTCA	GGTCGAAAGT	GCTCGTACTA	TGGGGGCAGG	6120
TAATGCCCAT	CTAAAGCTGA	AAATTTCCAA	GGGTGAGGCG	AGTTTTGAAG	TGGTAGCCTT	6180
TGGTCAAGGC	AGATGGGCGA	CAGAGTTTTC	TCAAACCAAG	AATCTAGAGT	TAGCGGTTAA	6240
ATTGTCTGTC	AACCAATGGA	ATGGCCAAAC	TGCCCTCCAG	TTGATGATGG	TGGATGCGCG	6300
AGTGGAAGGT	GTTCAACTTT	TTAACATTCTG	TGGAaaaaat	GCAGTCTTGC	CAGAAGGTGT	6360
TCCAGTCTTG	GATTTTCCTG	GAGAACTGCC	AAATCTTGCG	GCTAGTGAAG	CTGTTGTCGT	6420
AAAAAACATT	CCAGAGGATA	TTACTCAGCT	GAAGACCATT	TTTCAGGAAC	AGCATTTCTC	6480
TGCTGTCTAT	TTCAAAAATG	ATATTGACAA	GGCTTATTAT	CTGACAGGTT	ATGGGACTAG	6540
AGATCAGTTT	GCCAAATTGT	ACAAGACTAT	TTACCAGTTC	CCAGAGTTTG	ATATTCGCTA	6600
CAAGCTGAAA	GATTTGGCTG	CATATCTTAA	TATTCAACAA	ATCTTGCTGG	TCAAGATGAT	6660
TCAAGTATTT	GAAGAAGTAG	GCTTTGTGAC	GATAAAAGAT	GGTGTGATGA	CAGTCAATAA	6720
AGAGGCGCCA	AAGCGGGAGA	TAGGAGAAAAG	TCAAATTTAC	CAAAATCTCA	AACAAACCGT	6780
TAAAGACCAA	GAAATGATGG	CGCTGGGTAC	GGTGCAAGAA	ATTTATGATT	TTTGTATGGA	6840
AAAAGAGTAG	AAGTTAGGAA	AGAGTTGGGA	AATCAACTCT	TTTTTGAAAA	CAGACCTTCA	6900
TTTTGAAAAAT	CATCAAAAAA	ATGGTATAAT	GGTAGGAAAA	GATTCGGCTG	AAAGTATCAG	6960
AACCTTTTGA	ATAAGAGGGT	AGAATTGCCC	TATAATCAAG	ATAAACTAAG	ATTTTGGAGG	7020
AAAAATGAGT	AATATCAGTT	TAACAACACT	TGGTGGTGTG	CGTGAGAATG	GAAAAAATAT	7080
GTACATTGCT	GAAATTGGAG	AGTCCATTTT	TGTTTTGAAT	GTAGGGTTAA	AATATCCTGA	7140
AAATGAACAA	TTAGGGGTCG	ATGTGGTGAT	TCCAAACATG	GATTACCTTT	TTGAAAATAG	7200
CGACCGTATT	GCTGGGGTTT	TCTTGACCCA	CGGGCATGCG	GATGCCATTG	GTGCTCTACC	7260
GTATCTCTTG	GCAGAGGCTA	AAGTTCCTGT	ATTTGGGTCT	GAGTTGACCA	TTGAGTTGGC	7320
AAAGCTCTTT	GTCAAAGGAA	ATGATGCCGT	TAAGAAATTT	AATGATTTC	ATGTCATTGA	7380
TGAGAATACG	GAGATTGATT	TTGGTGGGAC	AGTGGTTTCC	TTCTTCCCTA	CGACTTACTC	7440
CGTTCAGAG	AGTCTGGGAA	TTGTCTTGAA	GACATCGGAA	GGAAGCATCG	TTTATACAGG	7500
TGACTTCAAA	TTTGACCAAA	CGGCTAGTGA	ATCTTATGCA	ACTGATTTTG	CTCGTTTGCC	7560
AGAGATTGGT	CGTGACGGCG	TCCTGGCTCT	CCTCAGTGAT	TCGGCCAATG	CAGACAGCAA	7620
TATTTCAGGTG	GCTAGTGAAA	GTGAAGTTAG	GGATGAAATT	ACCCAAACTA	TTGCTGACTG	7680
GGAAGGTCGT	ATCATCGTTG	CAGCTGTTTC	CAGTAATCTT	TCTCGTATTC	AGCAGATTTT	7740
TGACGCTGCG	GATAAAACAG	GTCGACGTAT	CGTCTTGACA	GGATTTGATA	TTGAAAATAT	7800
CGTCCGCACA	GCGATTCTGC	TTAAGAAGTT	GTCTTTAGCC	AACGAAATTC	TTTTGATTAA	7860

471

GCCTAAAGAT ATGTCTCGCT TTGAAGACCA TGAGTTGATT ATTCTTGAGA CAGGTCGTAT	7920
GGGTGAGCCT ATCAATGGAC TTCGTAAGAT GTCGATTGGT CGCCATCGTT ATGTAGAAAT	7980
CAAGGATGGG GACCTAGTCT ATATTGCTAC GGCTCCGTCT ATTGCTAAAG AAGCCTTTGT	8040
TGCGCGTGTG GAAAATATGA TTTATCAGGC AGGTGGGGTT GTCAAATTGA TTACCCAAAG	8100
TTTACATGTA TCAGGGCACG GAAATGTGCG TGATTGTCAG CTGATGATCA ATCTTTTGCA	8160
ACCTAAGTAC CTCTTCCCTG TCCAAGGGGA GTATCGTGAG TTGGATGCTC ACGCTAAGGC	8220
TGCCATGGCA GTTGGGATGT TGCCAGAACG CATCTTCATT CCTAAAAAGG GGACGACCAT	8280
GGCTTACGAG AATGGAGACT TTGTTCCAGC TGGATCGGTT TCAGCAGGAG ATATCTTGAT	8340
TGATGGGAAT GCCATTGGTG ATGTTGGAAA TGTGTCTCTT CGTGACCGTA AGGTCTTGTC	8400
AGAGGATGGA ATTTTCATCG TGGCTATTAC AGTCAACCGT CGTGAGAAGA AAATTGTGGC	8460
TAGGGCTCGT GTTCACACGC GTGGATTTGT TTATCTCAAG AAGAGTCGCG ATATTCTCCG	8520
TGAAAGTTCA GAATGATTA ACCAAACGGT AGAAGAGTAT CTTCAAGGAG ATGACTTTGA	8580
CTGGGCAGAT CTCAAAGGTA AGGTTCTGTA CAATCTGACC AAGTACCTCT TTGATCAAAC	8640
CAAGCGTCGC CCAGCCATTT TACCAGTAGT CATGGAAGCA AAATAATCGT TGAAATAAAC	8700
AGAGAGAAAG TCGAGTTTCG GCTTTTCTT ATAGAAAAAT AGAAGGAGAA AATCATGGCA	8760
GTGATGAAAA TCGAGTATTA CTCACAAGTA TTGGATATGG AGTGGGGGGT GAATGTCCTC	8820
TACCCTGATG CCAATCGAGT GGAAGAACCA GAGTGTGAAG ATATTCCCGT CTTGTACCTT	8880
TTGCACGGGA TGTCTGGAAA TCATAATAGT TGGCTTAAGC GGACCAATGT AGAACGCTTG	8940
CTTCGAGGAA CTAATCTCAT CGTTGTTATG CCCAATACCA GCAATGGTTG GTACACCGAT	9000
ACCCAGTATG GTTTTGAATA CTACACGGCT CTAGCAGAGG AATTGCCACA GGTTCGTGAA	9060
CGCTTCTTCC CTAATATGAC GAGCAAGCGT GAAAAGACCT TTATCGCTGG TCTTTCTATG	9120
GGAGGCTACG GCTGCTTCAA ACTGGCTCTT ACGACAAATC GTTTTCTCTCA TGCAGCTAGT	9180
TTTTCAGGTG CCCTCAGCTT TCAAACTTT TCTCCTGAAA GTCAAAATCT GGGAAGTCCA	9240
GCCTACTGGA GAGGTGTTTT TGGAGAGATT AGAGACTGGA CAACTAGTCC CTATTCTCTT	9300
GAAAGTCTGG CTAAAAATC GGATAAAAAG ACCAACTTT GGGCGTGGTG TGGCGAACAG	9360
GATTTCTTGT ACGAAGCCAA TAATCTCGCA GTGAAAAATC TCAAAAACT AGGTTTGTAT	9420
GTGACCTATA GCCATAGCGC TGGAACCTAC GAGTGGTACT ACTGGGAAAA ACAATTGGAA	9480
GTTTTTTTAA CAACCTACC AATTGATTTT AAATTAGAAG AGAGACTGAC TTAGTTTGAA	9540
CTTCAGCATA GGGGGAGTAG AACTAAAATA AAATATGTTT TCACTAGACT TTTCAAACGm	9600

472

AAGTAGTAGA	ATAGTAATAA	AATACTGGAG	GAAAGAGAGT	AGGAAATGTA	CCGTTATCAA	9660
ATTGGCATTC	CCACATTAGA	ATATGATCAG	TTTGTCAAAG	AACATGAATT	AGCCAATGTA	9720
TTACAAAGTA	GTGCTTGGGA	GGAAGTTAAG	TCTAATTGGC	AACATGAGAA	GTTTGGTGTT	9780
TACAGGGAAG	AAAAATTACT	GGCGACAGCT	AGTATTTTGA	TTAGAACTCT	TCCGCTAGGC	9840
TATAAAATGT	TTTACATCCC	AAGAGGACCT	ATATTGGATT	ATGGGGATAA	AGAACTCTTG	9900
AATTTTGCCA	FTCAGTCTAT	TAAGTCCTAT	GCTCGCAGTA	AGAGAGCGGT	TTTTGTGACT	9960
TTTGACCCAA	GTATTTGCCT	ATCTCAAAGT	TTAATCAATC	AGGAAAAGAC	AGAATTCCTT	10020
GAAAATCTGG	CTATTATTGA	TAGTTTGCAA	CAAATGGGAG	TAAGGTGGTC	AGGAAAAACG	10080
GAGGAAATGG	GAGACACCAT	TCAACCTCGT	ATTCAGGCGA	AAATATACAA	GGAAAATTTT	10140
GAAGAAGATA	AACTTTCCAA	GTCAACAAAA	CAGGCTATTC	GAACAGCACG	AAACAAAGGG	10200
CTTGAGATTC	AATATGGTGG	ACTGGAACCTA	TTAGATTTCAT	TTTCGGAGTT	GATGAAAAAA	10260
ACTGAGAAGC	GAAAAGAGAT	TCATTTGAGG	AATGAAGCCT	ATTATAAAAA	ATTGTTAGAT	10320
AATTTTAAGG	ACAAGGCCTA	TATCACCTTG	GCCACCTTGG	ATGTTTCTAA	ACGTTCGCAA	10380
GAGTTAGAAG	AACAGTTAGC	GAAAAATAGA	GCCTTGGAAG	AGACCTTTAC	TGAGTCGACT	10440
CGAACTTCAA	AAGTAGAAGC	GCAGAAGAAG	GAAAAAGAAC	GTTTGTTAGA	GGAATTGACC	10500
TTCTTGCAAG	AATATATAGA	TGTAGGTCAA	GCGAGAGTTC	CTTTAGCGGC	TACTTTGAGT	10560
TTGGAATTTG	GTACTACCTC	TGTCAATATA	TATGCTGGTA	TGGATGATGA	TTTTAAACGT	10620
TACAATGCAC	CAATTTTAAC	TTGGTATGAA	ACGGCTCGCT	ATGCCTTTGA	ACGAGGTATG	10680
ATCTGGCAAA	ATTTAGGTGG	TGTTGAAAAC	TCTCTCAATG	GTGGACTTTA	TCATTTTAAG	10740
GAAAAATTTA	ATCCAACGAT	TGAAGAATAC	TTGGGTGAAT	TTACAATGCC	CACTCATCCT	10800
CTCTATCCTC	TGTTAAGACT	TGCTCTTGAT	TTCCGTAAAA	CATTAAGAAA	AAAACATAGA	10860
AAGTAAGTAT	ATGGCACTAA	CAACACTCAC	GAAAGAAGAG	TTTCAGACTT	ATTCTGATCA	10920
GGTTTCTTCT	CGTTCCTTTA	TGCAATCTGT	CCAGATGGGG	GATTTGCTAG	AAAAAAGAGG	10980
GGCTCGAATT	GTTTATCTTG	CTTTGAAACA	AGAAGGAGAA	ATTCAAGTTG	CAGCTCTGGT	11040
TTATAGCCTG	CCCATGCTGG	GTGGTCTGCA	TATGGAACCTC	AATTCGGGGC	CGATTTTATAC	11100
CCAACAAGAT	GCTCTTCCAG	TTTTTTATGC	AGAGTTAAAA	GAATATGCCA	AGCAAAATGG	11160
TGTATTAGAG	TTGCTTGTA	AACCCATATGA	AACTTATCAA	ACTTTTGATA	GCCAAGGTAA	11220
TCCAATAGAT	GCTGAGAAAA	AAAGTATTAT	TCAAGATTTG	ACTGATTTAG	GTTATCAATT	11280
TGATGGCTTA	ACAACAGGTT	ACCCAGGTGG	AGAACCAGAT	TGGTTTAACT	ATAAAGATTT	11340
AACTGAATTA	ACTGAAAAGA	GTTTGCTTAA	AAGTTTATAGC	AAAAAGGGTA	AACCCCTGGT	11400

473

GAAAAAGGCT GAAACCTTTG GCATTCGGTT GAAAAAGTTA AAACGTGAAG AACTATCGAT	11460
TTTTAAGAAT ATAACAAAAG AAACCTCTGA ACGTAGAGAA TATAGTGATA AAAGTTTAGA	11520
ATATTATGAG CATTTTTATG ATACTTTTGG AGAACAAGCG GAGTTTCTCA TAGCAAGCTT	11580
AAATTTTTCG GACTATATGA GCAAATTGCA AGGTGAACAA AGTAAACTAG AAGAAAACCT	11640
GGACAAGTTG CGACTTGATT TGAGTAAAAA TCCTCATTTCT GAGAAAAAAC AAAATCAACT	11700
GAGAGAATAT TCTAGTCAAT TTGAAACGTT TGAAGTTCGA AAAGCAGAAG CGCGAGACTT	11760
GATTGAAAAA TATGGAGAAG AAGATATTGT TTTAGCTGGG AGTTTATTG TTTATATGCC	11820
TCAGGAAACG ACTTATCTCT TTAGTGGTTC CTACACTGAG TTTAATAAGT TCTATGCCCC	11880
TGCACTGCTT CAAAAATATG TTATGTTGGA AAGCATAAAA CGTGAATAC CTAAATACAA	11940
CTTCCTAGGC ATTCAAGGGA TTTTGTGATG AAGTGATGGT GTTTTGCCTT TTAACAGAA	12000
TTTTAATGGC TATATTGTAC GCAAAGCAGG TACTTTCCGT TACCATCCAT CGCCTTTAAA	12060
ATACAAAGCT ATCCAGTTAC TCAAAAAAAT AGTAGGACGT TAAGATGAAA AAGTCAGTAT	12120
TTAGATTCTT TTTAGCTTCT TTAGTAAAA TAATCTTAT TTGCTAGAAA GGTGGAGAGA	12180
CATGCGCTGG CTTTTTCGTT TGATAGGGGC TTTCTTTTCT TTTGTGTGGC GTTTGTTTTG	12240
GCGTCTGGTT TGGATAGTTG TGCTCTTATG TGTGCTTGCT TTCGGACTTC TCTGGTATCT	12300
GAACGGAGAT TTTCAAGGAG CGCTAAAGCA AGCAGAACGG TCAGTAAAAA TTGGTCAACA	12360
AAGTATTGAC CAATGGGAGA AAACAGGGCA ACTGCCTAAG TTAAGCCAGA CAGATAGTCA	12420
CCAGCATTTCT GAAGGAAGGT GGGCACAGGC CTCTGCTCGT ATTTACCTGG ATCCGCAGAT	12480
GGATTACAGC TTTCAAGAGG CTIATTTAGA AGCAATCCAG AACTGGAATC AACTGGTGTC	12540
TTTTAACTTT GAATCGTGA CTGAGCTAG TAAGGCGGAT ATTACGGCTA CGGAGATGAA	12600
CGACGGAGGC ACTCCTGTGG CAGGAGAGGC GGAAAGTCAA ACTAATCTCT TAACAGGGCA	12660
ATTCTTGTC GTAACGGTGC GGTGAATCA TTATTATTG TCCAATCCAT ACTATGGCTA	12720
CTCCTATGAA CGCCTTGTC ATACGGCAGA ACATGAGTTA GGTGATGCGA TTGGCTTGGA	12780
CCATACAGAT GAGAAGTCTG TCATGCAACC AGCAGGTTCC TTTTATGGTA TCCAGGAAGA	12840
GGATGTTGCA AACCTCCGAA AAATATATGA GACTAGTGAG TAGGGTACTA TCTTCCCTA	12900
CTTTTTTTGC TATAATGGAA CTATGAACAA CTTGATTAAA TCAAACTAG AGCTCTTGCC	12960
GACCAGCCCT GGTGCTACA TTCATAAGGA TAAAAATGGC ACCATTATCT ATGTAGGAAA	13020
GGCTAAAAAT CTGCGTAATC GAGTACGGTC CTATTTTCGT GGAAGTCATG ATACCAAGAC	13080
AGAGGCTCTG GTGTCTGAAA TTGTGGATTT TGAATTTATT GTTACGGAGT CTAATATTGA	13140

474

GGCACTTCTC	CTAGAAATCA	ACCTGATCAA	GGAAAACAAG	CCCAAGTACA	ATATCATGCT	13200
CAAGGATGAC	AAGTCCTATC	CTTTCATCAA	AATCACCAAT	GAGCGCTATC	CACGCTTGAT	13260
TATCACTCGT	CAGGTCAAAA	AGGACGGAGG	TCTTTATTTT	GGACCCATATC	CCGATGTGGG	13320
GGCAGCCAAT	GAAATCAAGC	GGTTGCTGGA	TCGGATATTC	CCTTTTCGTA	AGTGTACCAA	13380
CCCGCCCTCT	AAGGTCTGTT	TTTATTACCA	TATCGGCCAG	TGTATGGCCC	ACACCATCTG	13440
TAAGAAGGAT	GAGGCTTATT	TCAAGTCTAT	GGCCCAGGAG	GTGTCTGATT	TTCTGAAAGG	13500
TCAGGATGAC	AAAATCATCG	ATGATCTCAA	GAGTAAAATG	GCAGTAGCAG	CACAAAGTAT	13560
GGAGTTTGAA	CGTGCGGCGG	AATACCGTGA	CCTGATTCAG	GCTATTGGAA	CGCTTCGAAC	13620
CAAGCAACGG	GTCATGGCGA	AAGATTTGCA	AAATCGCGAT	GTCTTTGGCT	ACTATGTGGA	13680
TAAGGGCTGG	ATGTGTGTGC	AGGTTTCTTT	TGTCCGTCAG	GtAAGCTCAT	CGAGCGCGAT	13740
GTCAATCTCT	TCCCCTACTT	CAATGATCCA	GATGAGGATT	TTTTGACCTA	TGTAGGACAA	13800
TTCTATCAAG	AAAAATCTCA	TCTAGTTCCT	AATGAGGTAC	TGATTCCGCA	GATATTGACG	13860
AAGAAGCTGT	CAAGGCTTTG	GTGGATTCCA	AGATTCTTAA	GCCTCAACGT	GGAGAGAAAA	13920
AACAACTGGT	CAATCTAGCC	ATAAAAAATG	CTCGTGTTAG	TCTAGAGCAG	AAGTTCAATC	13980
TGCTAGAAAA	ATCTGTCGAA	AAGACTCAAG	GAGCTATTGA	AAATCTAGGG	CGTTTGCTCC	14040
AAATCCCGAC	CCCAGTACGT	ATCGAGTCCT	TCGATAACTC	TAATATCATG	GGAAGTAGCC	14100
CTGTTTCGGC	TATGGTGGTC	TTTGTCAACG	GTAACCGAG	TAAGAAGGAT	TACCGTAAGT	14160
ACAAGATAAA	AACGGTTGTT	GGACCAGACG	ACTATGCCAG	CATGAGAGAG	GTCATTGCA	14220
GACGTATGCG	TCGAGTACAG	CGTGAGGCTT	TGACTCCTCC	AGATTTGATT	GTGATTGATG	14280
GGGGGCAAGG	TCAAGTCAAT	ATCGCTAAGC	AGGTTATCCA	AGAGGAACTG	GGCTTGATA	14340
TTCCAATTGC	TGGGCTGCAA	AAGAATGATA	AGCACCAAAC	CCATGAATTG	CTCTTTGGAG	14400
ATCCGCTTGA	GGTGGTGGAT	TTGTCTCGCA	ATTCTCAGGA	ATTTTTCCTC	CTCCAACGCA	14460
TCCAAGATGA	GGTGACCGC	TTTGCTATCA	CTTTCACCG	CCAACTGCGC	TCCAAAAATT	14520
CTTTCTCATC	TCAATTGGAT	GGGATTGACG	GTCTGGGACC	TAAACGCAAG	CAGAATCTTA	14580
TGAAGCATTT	CAAGTCTTTG	ACCAAAATCA	AGGAAGCCAG	TGTGGATGAG	ATTGTGGAAG	14640
TTGGGGTACC	TAGAGTCGTT	GCAGAGGCTG	TGCAAAGAAA	GTTGAACCCG	CAGGGAGAAG	14700
CCTTGCCTCA	AGTAGCAGAA	GAAAGAGTAG	ATTACCAAAC	GGAAGGAAAC	CACAATGAAC	14760
CATAAAATCG	CAATTTTATC	AGATGTTTAT	GGCAATGCGA	CGGCGCTAGA	AGCAGTGATT	14820
GCAGATGCTA	AAAATCAAGG	GGCCAGTGAA	TATTGGCTTC	TGGGAGATAT	TTTTCTTCCT	14880
GGTCCAGGCG	CAAATGACTT	AGTCGCCCTG	CTAAAGGACC	TTCTTATCAC	AGCAAGTGTT	14940

475

CGAGGCAATT	GGGATGATCG	TGTCCTTGAG	GCTTTAGATG	GGCAATATGG	CTTAGAAGAC	15000
CCACAGGAAG	TTCAGCTCTT	GCGTATGACA	CAGTATTTGA	TGGAGCGAAT	GGATCCTGCA	15060
ACGATTGTCT	GGCTACGAAG	CTTGCCTTTG	CTGGAAAAGA	AAGAAATTGA	CGGATTGCGC	15120
TTTTCTATCT	CTCATAATTT	ACCTGACAAA	AACTATGGTG	GTGACTTGCT	AGTTGAGAAT	15180
GATACAGAGA	AATTTGACCA	ACTGCTAGAT	GCGGAAACGG	ACGTGGCAGT	TTATGGTCAT	15240
GTTCACAAGC	AGTTGCTTCG	TTATGGAAGT	CAAGGGCAAC	AAATCATCAA	TCCAGGGTCG	15300
ATTGGCATGC	CCTATTTTAA	TTGGGAGGCG	TTAAAAAATC	ACCGTTCCCA	GTATGCCGTG	15360
ATAGAAGTTG	AAGATGGGGA	ATTACTCAAT	ATCCAATTTC	GTAAAGTTGC	TTATGATTAC	15420
GAAGCTGAGT	TAGAAATGGC	CAAGTCCAAG	GGGCTTCCCT	TTATCGAAAT	GTATGAAGAA	15480
CTGCGTCGTG	ACGATAACTA	TCAGGGGCAC	AATCTGGAAT	TATTAGCCAG	CTTAATAGAA	15540
AAGCATGGGT	ATGTAGAGGA	TGTGAAGAAT	TTTTTTGATT	TTTTGTAAAG	GTTTCCTAAA	15600
ATAGCCAATG	CAAACATAAA	AAGCGATTTG	CTGGTCCAAT	CGCTTTTAGT	ATATCTTATA	15660
CTCAATGAAA	ATCAAAGAGC	AAACTAGGAA	GCTAGCCGTA	GGTTGCTCAA	AGCACAGCTT	15720
TGAGGTTGCA	GATAAAGCTG	ACGTGGTTTG	AAGAGATTTT	CGAAGAGTGT	TATTGTAACT	15780
GAGATTGATC	TGGGAGGTAA	GAACCACCTA	GATAGGTATT	GCTGAGTTTT	TCAAGGGTTC	15840
CGTCTTGATA	GAGTTCCTTG	AGCGCTTTAT	CAAATTGCTC	TTTAACTCT	TTTTGGTCGC	15900
TTGAGAAAAAT	GATATAATTG	CTGGGGCTAT	CTGCAGAAGG	TAAATCAACG	ACTGAGAGGT	15960
CTAAACCACG	GTCCTTGATA	ATCTTTTGAA	CGGATACCTT	GTCAAAAACT	AGGAAATCAA	16020
ACTCTCCGTT	AGCAAGGTCT	AGGATTCGTT	TACCAATATC	CTCACCAGAA	AAATTAATTG	16080
TAGCGGGATT	ATCAGTGTGT	TTCTGATTCC	AGTTATTGAT	GAATTGAGCG	TTAGAAGTTC	16140
CGGTATCCTC	TTGTGTGTT	TTACCAGCGA	TCTGGTCAAG	AGAAGTCAAA	GGATTTTCT	16200
TGTTGCTGAC	AAGGACGAGG	GGATTGTTGG	AAATTGGAAG	CGAGTAAAGG	TATTTTTCAG	16260
CACGCTCTTT	TGTGTAATC	AAGTTATTGG	CCGCAGCCTG	ATAGTGACCA	GAATCAAGTC	16320
CTGGGAAGAT	GCTCTCCCAG	GCGGTTCTTT	GGAATTGAAT	CTCGTAGTCG	CTGAGTTTTT	16380
CATCTACTGC	CTTTAAAACT	TCGATATCAA	AGCCTGTCAG	ATTGCCCTTG	TCTTCGTAGT	16440
CAAATGGTGG	CACGTCGCCA	GCTGTAGCAA	GGACGATTGT	CTTTTGAGCG	CTAGTCTCTT	16500
TGGGTGTAGC	TTGATTCTCA	CAGGCAACCA	AAAATGGTAG	GATAGCTAGT	AATAGGCTAA	16560
ATTTTTTCAT	ACTGTCTCCA	TTCAAATGTA	AAG			16593

(2) INFORMATION FOR SEQ ID NO: 53:

476

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3510 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

GGGATATCCT TATATCCTTG TTCCTGGAAC CATGTGCGGA ATTGCTCAAC AGTTTTTTTCA	60
CCTTGAATTC CTGGTGCAAT GACAGTAAGA ATTCGAAAT CACGATCTGG TTTCGCCGCT	120
AGTTCATCA ACTCTGGCAT ACTTTTCTTG CATGGACCAC ACCATGAAGC CAAAACTTC	180
AAGTAAACCT TTTTACCCTT AAAATCAGAT AACTTAACTT CTTTGCCATC CATGGATTGC	240
AATGTGAAGT CTGGAGCATC TTTTCCAACA GCAATTTGTT GTACAGTCGT TTGTTGTTTT	300
GGCTGTTGTG CTGCTTGAGT CTTTTTAGTT TCTTCCTCAC CACAGGCCAT CAATACAAC	360
AATGACAAGA GACTTAAGCC AGCAAACATT ACTTTTTTCA TTTGTCCTCC TTTATTCAAA	420
AATCCAGCT AGAACATTTA CTTGTCTTAA TAGTAACAAA ATTCCCATTA AAACAATGAG	480
GAAACCACCA ATTTTCTTTA GTAGCATCAT ATGACGCTTG ATTTTACTAA AATATGGCAT	540
GACTAGACCT GAAGCTAGTG CCAATACCAA GAAAGGAAGG GCCATGCCaG AGTGTAATG	600
AGAGTATAAA TCGCTCCTTG CCAAGCGCCA TTGCCTCCAG AAGCCGCAAG TGCTAAAACA	660
GAACTTAAAA CTGGACCAAT ACAAGGTGTC CAACCAAAGC TAAAGGTAAT ACCAAGTAA	720
AAAGCTGACC AATAACGATT AGAATCTGAT TTTTTAAAGG TAAAACTTTT TTGAACCTCT	780
AATTTCTTCA AATGAAAAAT TTCCATCTGG TGAAGACCCA AAATGATAAT AATAGCTCCC	840
ATGCCATATC GAAACCAATT TGCATAGAGA ATATGACCAA AGTAACCAGC ACCAAAGCCT	900
AGAATAAAGA AAATGAGAGA GATACCAGCG ATAAAGCAAA GTGTTCGAAT CAAGCCTGAC	960
CAGAGAACCT TTCTCCCAA CAAAGAAAAG CTTTTTGAC TTTCTTGATC ATCCAATAAA	1020
ATCCCAGCAT AGACTGGCAG AAGAGGAAAA ATACAAGGAG AAAAAAGGA TAAACACCT	1080
GCTAGAAAAA CAGAGATTAA AAATACTATC GTTCCAATA AAGAACCAAC TTTCTTAATA	1140
ATTCTAATCC TATTTTACTA TATTCATTTT TATTTGTAAG CTTTCTGCTA CGCAAAATCG	1200
TATCGGGCAC TATTGGACCA ATCTTTTCTT TTGCTAGTCA AGGCGGATCT TATCCCCCA	1260
AATAGCCAAA AAGCAACGAC AAGGATTACT CATCGCTGCT TTTGTGAACG AAAATGTCTT	1320
TTAGGTCTGA CATTTTATAA ATCATGTTTT ACTTGAGTTT GTCAAGGATT GCTTTAAGCT	1380
CCTCTACTAG TTTAGTTTCT GTCTCTGCTG AGCCATTTTC TTCTTTCACG AAATCAAGGG	1440
TTTCTTGAG AAGGTTTTGG GCTTTGGCAA GGACTTTTTT ATCCGCTTTT TCTGCATCTA	1500

477

GCTGTCCTAG AACCTTGATC AATTCCTGTC TTAATTGCTG GATTTCTGAC TCTTTCTTAC	1560
GGCGAATCAG CCAGAAGGCA ATCACGCCTA GGAGGGCAAG TAGACTGACC ACAATCACTC	1620
CTGCCGGAAC TGAGTTTGTT TCAGTCATCT TATCTGAATC CTTACTATCT TCCGTTCTTT	1680
GTTTTGCATC CTTCTTGTC TGTGCAGGCT TGCTGTCGCT AGCATTTGCT TTCACATCTT	1740
TGAGAGAGTC CAAGGCAGCC CAGCCTTCAC AGACTCTACT GCAGTATGCA GACCTTACTC	1800
TGTCAAGGCA CTATCTTCCG GAGCTTTTTG AGCATCTAGG AGGACAGCCT TGGTTGCATC	1860
GATTTTCGGA TCAGATACTG TTGCCAAAGC TTTCAAGCGT TGGTCTAACT CTTGACTCAA	1920
GGCACGAAGT TCAGACTTGT CAACTTGCTC TTGAGCTTGT GTGCTCGTTG AGCTAGCCGA	1980
AGCGCTTGCT ACCACTCTAG GATCTTGAGT CGGAGCTGAG CTTGGAGCTG GGACAGGGCT	2040
TGCAGGTTGA CTAGGAACAG TTATGGTATA TTGAACTAG AATAGTACAT ATGGACTTCT	2100
AAAACATTGT TAGAATTCGA TTTTACTGTC CTGATCGATT TGTCTATTTC TTATTTTATT	2160
TTACTATAAT AACCAGTGGT GTGGTTAATG TTGGTAAGAG AACTTCTGA AACCAAGCTT	2220
CAAAAAAGTC GTCGTCATC GTCTCTTCGT AAGTCATTGG AGCGATTAAT TCACCATTG	2280
TTAGACCTGC AACCAAAGAA ATCCTCTGAT ATCTTCTTCC AGATACTTTG CCTCTTATTA	2340
ACTGACCTTT TAATGAGCGA CCATATTCTC GATAAAAATA AGTATCGAAT CCTGTTTCGT	2400
CAATCTAAAC AGGTGCTAGG TGCTTTAAAC TATTAATAAT CTTAAGAAAT AAGGCTACTT	2460
TTTCTGGGTC TTGTTTCATAG TAGGTGTGGT TCTTTTTTTC GAGTGTAGCC CATAGCTTTG	2520
AGCGCATAGT GGATGGTAGT TGGATGACAG CCAAATCAG AAGCTATTTC AGTCAAATAA	2580
GCCTCTGGAT TGTCAGTAAG ATAGTTTTTA AGTCTATCTC TATCAACTTT TCTTGGTTTT	2640
GTTCCTTTTA CTTGGTGGTT TAGCTCTCCT GTTTTCTCTT TTAGCTTTAA CCAGCCATAA	2700
ATGGTATTAC GTGAGATTG GAAAACGTGT GATGCTTCTG TTATACTACC TATTCGCTCA	2760
CAATAAGAGA GAACTTTTTT ACGAAAATCT ATTGAATATG CCATAAGAAG ATTATACCAC	2820
ATTGTGTACT ATTTTGGTT CATTTCACTA TAACACAAAA TAGATTATTA TTACATAACA	2880
AAAAAGAGGT CTAAACCTCT TAACTCAATT ACTCCGCCAG TAGGACTCGA ACCTACGACA	2940
TCATGATTAA CAGTCATGCG CTAATACCAA CTGAGCTATG GCGGATTAAA GCTAAGCGAC	3000
TTCCCTATCT CACAGGGGGC AACCCCAAC TACTTCCGGC GTTCTAGGGC TTAACCTCTG	3060
TGTTTCGGCAT GGGTACAGGT GTATCTCCTA GGCTATCGTC ACTTAACTCT GAGTAATACC	3120
TACTCAAAAT TGAATATCTA TTCAATTTAA GAAAACCGTT CGCTTTCATA TTCTCAGTTA	3180
CTTTGGATAA GTCCTCGAGC TATTAGTATT AGTCCGCTAC ATGTGTCGCC ACACCTCCAC	3240

478

TTCTAACCTA TCTACCTGAT CATCTCTCAG GGCTCTTACT GATATATAAT CATGGGAAAT	3300
CTCATCTTGA GGTGGkTtCA CACTTAGATG CTTTCAGCGT TTATCCCTTC CCTACATAGC	3360
TACCCAGCGA TGCCTTTGGC AAGACAACTG GTACACCAGC GGTAAGTCCA CTCTGGTCTT	3420
CTCGTACTAG GAGCAGATCC TCTCAAATTT CCTACGCCCG CGACGGATAG GGACCGAACT	3480
GTCTCACGAC GTTCTGAACC CAGCTCGCGT	3510

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20986 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGGAGAAAAA CATGGCTAAG TCAAACCTTG AAAAAGTAGA ATCAGTTGTT GGCTGGGTTC	60
GTGATAAGAA AATCACAGGC TACCGTATCT CTAAGAAAC GAATGCGCGT GAAATGTCTA	120
TCATTGCTCT GCGCAGGGT CGTGCAAAG TAAAAATAT TTCATTTGAA ACAGCCCTAG	180
GCCTAATTGA TTTCTATGAA AAAAATTATG AAAAATTGA AGATTAATCT TTGGATAACG	240
GCGGATTCTT GACCTTCAAG TAGTAGAGAT AGAGAATCTG CCTTTTCATT TTGAGGACAG	300
CAAAAAGACT GCACGGTTGA TGCAGCCTTT TCTTTTATT TGAGATAGCG TTGAAGGAAC	360
TCTTTTGTTT GGTCTTCTT AGGATTGGTG AAGAGGTCTT CTGGTTTACC TTCTTCAGCG	420
ATCACGCCCT TATCCATAAA GATAACACGG TGAGAGACAT CACGGGCAAA TTCCATTTCA	480
TGGGTACGA CAATCATGGT CAAGCCTTCC TGAGCCAGGT CCTGCATGAT TTTGAGGACT	540
TCTCCAACCA TTTCTGGATC GAGAGCTGAT GTTGGTTCAT CAAAGAGAAT AGCGTCCGGA	600
TTCATGGAGA GGGCACGAGC GATGGCCACA CGTGTGTTTT GACCACCTGA GAGTTGTTTT	660
GGTTTGCTT GCCAGTAGCG TTCTCCCATG CCGACCTTT CCAGGTTTTC TTGGGCAATC	720
TTTTTCAGCT CTGTGCGTTC GCGTTTTAGG ACAGTTGTCT GAGCGACGAT TGTGTTTTCA	780
AGAACATTGA GATTTTCAA GAGGTTAAAG GATTGGAAAA CCATCCCCAA CTTTTCACGG	840
TATTGCGTGA GGTATAGCC TTTTTCGAGG ACGTTTGTG CATGATAAAG GATTTGTCCA	900
TCAGTTGGTG TTTCAAGTAG GTTAATGGAG CGTAGGAAG TCGATTTTCC GCTTCCAGAG	960
CTTCCGATGA TAGAGATGAC CTCTCCCTTG TGGACAGTGA GTGAAATGTC TTTTAGCACT	1020
TCGTTTGTG CATAGATTT TTTGAGGTGT TTAATTTCAA GGATTGCTTG TGTCATTATT	1080
TCAAATCCTC CGTTTGCATT TGGTTAGCAC CTGTAGTGTA GGTATCCATG TCCATTCTGC	1140

479

GCTCGATAAA GCGTAGGATA CGTGTTACGG TGAAGGTGAG GACAAAGTAA ATCACGGCGA	1200
TGATTGTAAA TGTCTGGAAG TATTGATAGG TTTGTGTGTC CACGGTATTT CCTGAGAAAT	1260
AAAGTTCGAC AACAGAGATA ACGTTCAATA CAGATGTATC TTTGATATG ATGACAAATT	1320
CATTACCACT TGCAGGTAGG ATGTTACGGA CTACCTGAGG TAGGACAATC TTACGCATGG	1380
TCTGGTTATG GGTACATACCA AGAGCAGTCG CAGCTTCAAA TTGTCCCTTG TCAACTGCTA	1440
GGATACCACC ACGGACGATT TCAGTCATGT AGGCACCGGT ATTGATTGAA ACGATGAAGA	1500
TAGCAGCCAG TGTACGGTCA AGGTTGATCC CGAAAGCTTG GGCAGTTCCA TAGTAGATAA	1560
CCATCGATTG AACAAATCATT GGCGTACCAC GGAAAATTTC AATGTAGACA TTGAGAACCC	1620
AGCCGACTAG TTTTGTAGG CCGTAAATGA CTTTGTTTTC AGAGAGAGGA GCAGTACGGA	1680
AGACACCAAT GGCAAGTCCA ATAATGAGAC CTATGATGGT TCCGACGATA GAGATTAAAA	1740
GAGTGATACC AGCACCACGC AAGAGTTGTT GCCAGTTTTC AGAAAGAATT TTAGCAACTT	1800
GGCTAAAGAA ACTACTGCTA GTCTCTTCAG TTGTTGTAGC TTCGGCAGGT TGTTCCTTGA	1860
TCATACGATC CATCAAGGCA ACTTGGTCAT CTTTGTAAAT GGTTCATATG CTGGCATTGA	1920
TTTGGCTAAT ACGATTGTCA TTTTACGAA GCCCGATAGC GATAGCTGTA TCTCTTCCC	1980
CAGTTTGTAA ACCAGGTTCT ACTTGAATCA TCTTGAACCT AGAGTTCGCA GCTTCAGCAG	2040
TCAGTGCTTC TGGACGTTCA GAAACATAAG CATCAATGAC ACCAGCCTCA AGAGCTTGTC	2100
GCATTTGAGC GAAGTCTCCC ATGGCTGTTT CTTTTTTAGC ACCTGGGATT TGTGCAATCA	2160
AGTTATAAAG GTAGACCCCT TGTGAGAAG TGATTTTTGC ACCGTAAAG TCATCCAAAG	2220
ATTTAGCACT TGCGTAGGCA GAATCTTTTT TGACAAGCAA AACTGGTTCG CTAGTATAGT	2280
AACTGCTCGA AAAGGCAATT TCTTGTTGTC GTTCTGCAGT TGGACTCATA CCTGCGATAA	2340
TCATGTCAAT CTTACCAGAA GTAAGGGCAG GGAAGTAGAC TTCCCACTTG GTTTTAACAA	2400
CCAAAGGTTT TTTACCTAAG TCCTTAGCGA TTTTCTTGGC GATTTGAACA TCGTATCCGT	2460
TGGCATACTG ATTGGTCCCA TCGATTTTGA CAGCTCCGTT GCTATCATCA TCCTGGGTCC	2520
AGTTAAAGGG AGCATATGCT GCTTCCATAC CGATGCGTAA ATATTCATCG GCTTGAGCAA	2580
CATTGACAAG TCCTAGCATC AGCAAGAGAC TTGTGAAAAT AGATAAGTAY ATGTGGCTCA	2640
TGATTTCTCC TATTCTGATC TATTAAAAAA TAACTGTCTC CTATTTTATC GAAAAATGCG	2700
TAATTTTTC AATAAGTAA GTCTTTACTT ACGAAAAAAT GCTATAATGA TAAGAAAGAT	2760
AAAAAGGGGG CTTAGTTGAT GAAAAAACT TTTTCTTAC TGGTGTAGG CTTGTTTTC	2820
CTTCTCCAC TCTCTGTTTT TGCCATTGAT TTCAAGATAA ACTCTTATCA AGGGGATTTG	2880

480

TATATTCATG CAGACAATAC GGCAGAGTTT AGACAGAAGA TAGTTTACCA GTTTGAGGAG	2940
GACTTTAAGG GCCAAATCGT GGGACTTGGA CGTGCTGGTA AGATGCCTAG CGGGTTTGAC	3000
ATTGACCCTC ATCCAAAGAT TCAGGCCGCG AAAACCGGTG CAGAACTAGC AGATGTGACT	3060
AGCGAAGTAA CAGAAGAAGC GGATGGTTAT ACTGTGAGAG TCTATAATCC AGGTCAGGAG	3120
GGCGACATAG TTGAAGTTGA CCTCGTCTGG AACTTAAAAA ATTTACTTTT CCTTTATGAT	3180
GATATCGCTG AATTAAATTG GCAACCTCTG ACAGATAGTT CAGAGTCTAT TGAAAAGTTT	3240
GAATTTTCATG TAAGGGGAGA CAAGGGGGCT GAAAAACTCT TTTTCCATAC AGGGAAACTT	3300
TTTAGAGAGG GAACGATTGA AAAGAGTAAC CTTGATTATA CTATCCGTTT AGACAATCTT	3360
CCGGCTAAGC GTGGAGTTGA GTTGCATGCC TATTGGCCTC GGACCGATTT TGCTAGCGCT	3420
AGGGATCAGG GATTGAAAGG GAATCGTTTA GAAGAGTTTA ATAAGATAGA AGACTCGATT	3480
GTTAGAGAAA AAGATCAGAG TAAACAACCTC GTTACTTGGG TCCTCCCTTC GATCCTTTCC	3540
ATCTCCTTGT TATTGAGTGT CTGCTTCTAT TTTATTTATA GAAGAAAGAC CACTCCTTCA	3600
GTCAAATATG CAAAAATCA TCGTCTCTAT GAACCACCAA TGGAATTAGA GCCTATGGTT	3660
TTATCAGAAG CAGTCTACTC GACCTCCTTG GAGGAAGTGA GTCCCTTGGT CAAGGGAGCT	3720
GGAAAATPCA CCTTTGATCA ACTTATTCAA GCTACCTTGC TAGATGTGAT AGACCGTGGG	3780
AATGTCTCTA TCATTTTCAGA AGGAGATGCA GTTGGTTTGA GGCTAGTAAA AGAAGATGGT	3840
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CTTTCCAATT TGTTTGCGGA TTACAAGGTA TCTGATAGTC TTTATCGTAG AGCCAAAGTT	3960
TCTGATGAAA AACGGATTCA AGCAAGAGGG CTTCAACTCA AATCTTCTTT TGAAGAGGTA	4020
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TATCGTCCTT TAACTGGTGG GGAAAAGGCC TTGCAAGTGG GTATGGGTGC CTTGACTATC	4140
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GAAAGTATTG TGGTCTGGAA TCGCCTCTTG GTCTATGCGA CCTTATTTGG CTATGCGGAC	4440
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GCTAGTGTCT CAAATACAGC AAGCACCTAC TCTGTATCTT CTGGAAGTGG AAGTTCTGGT	4620
GGTGGCTTCT CTGGAGCGG AGGTGGCGGC AGTATCGGTG CCTTTTAAAG AGAGCTACCA	4680

481

TAGACTGAAA	AAGTATGATA	TAATGGAAGA	TAGAAAAAAG	ACAAACTATA	AGAAAAGTCA	4740
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CGGCAAAAAG	CCCTTGAAAA	AGTCCATTTT	TTCAAAGGTA	ATCCTGTGTT	AATTTcagaa	4860
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AGTCTTAAGA	TAGGCCTTAG	AAGCAGGTGA	AAAGCGAGGG	CATGCTTTGG	CAGCTTGAT	5040
GAGTGCCAC	CGCAGATGAG	GGGAACCCCG	TTTGACCATT	CTCCAGCTA	AATCAATCTG	5100
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GTAACCGTCG	TGATGACCGA	GTTGAACTCA	GCCATCGAGT	CATTGATACA	TGTTTCCGCC	5280
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482					
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ACCAAAAGCT	CTTGCCTCAT	AACTACAGGT	AGAAACGACT	CCCCGTCCAC	CTGTTTGCCG 8160
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483

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484

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485

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486

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487

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488					
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CAAAATAAGC	CTATCGTTGC	CTTCCAAATA	GTAAATGGAG	AAGTCAGAGA	TGTGACTTCA 17160
ATCGTTCCAC	AAGATATACC	AGCGGGTTAC	GAGTTTACGA	ATGATAAGCA	CTATATTACC 17220
AATGAACCTA	TTCTTCCAAA	GAGAGAATAT	CCTCGAACTG	GTGGTATCGG	AATGTTGCCA 17280
TTCTATCTGA	TAGGTTGCAT	GATGATGGGA	GGAGTTCTAT	TATACACACG	GAAACATCCG 17340
TAAAGTGTAG	AAATGATAAT	ATCTATGTTC	TGAACGATAC	TTTTAAGAAG	TAGCACTCAA 17400
GAAGAGATTT	AAGTTTACTT	GGTGAAACCT	GTTTTATTTCG	TAAGTAAACT	ATCATTGAAA 17460
GGGGAGATGT	TTTCGAAAAC	TTGCACAGAA	AAAGGATTAT	TATTGTCATG	TGTAATTCAT 17520
TACATTGCTC	ACAGTTGATT	TTAAGAGATA	TGAATAAGGA	GAAATCATGA	AATCAATCAA 17580
CAAAATTTT	ACAATGCTTG	CTGCCTTATT	ACTGACAGCG	AGTAGCCTGT	TTTCAGCTGC 17640
AACAGTTTTT	GCGGCTGGGA	CGACAACAAC	ATCTGTTACC	GTTTATAAAC	TATTGGCAAC 17700
AGATGGGGAT	ATGGATAAAA	TTGCAAATGA	GTTAGAAACA	GGTAACTATG	CTGGTAATAA 17760
AGTGGGTGTT	CTACCTGCAA	ATGCAAAAGA	AATTGCCGGT	GTTATGTTCG	TTTGGACAAA 17820
TACTAATAAT	GAAATTATTG	ATGAAAATGG	CCAAACTCTA	GGAGTGAATA	TTGATCCACA 17880
AACATTTTAA	CTCTCAGGGG	CAATGCCGGC	AACTGCAATG	AAAAAATTAA	CAGAAGCTGA 17940
AGGAGCTAAA	TTTAACACGG	CAAATTTACC	AGCTGCTAAG	TATAAAATTT	ATGAAATTCA 18000
CAGTTTATCA	ACTTATGTCG	GTGAAGATGG	AGCAACCTTA	ACAGGTCTTA	AAGCAGTTCC 18060
AATTGAAATT	GAATTACCAT	TGAACGATGT	TGTGGATGCG	CATGTGTATC	CAAAAATAC 18120
AGAAGCAAAG	CCAAAAATTG	ATAAAGATTT	CAAAGGTAAA	GCAAATCCAG	ATACACCACG 18180
TGTAGATAAA	GATACACCTG	TGAACCACCA	AGTTGGAGAT	GTTGTAGAGT	ACGAAATTGT 18240
TACAAAAATT	CCAGCACTTG	CTAATTATGC	AACAGCAAAC	TGGAGCGATA	GAATGACTGA 18300
AGGTTTGGCA	TTCAACAAAG	GTACAGTGAA	AGTAACTGTT	GATGATGTTG	CACTTGAAGC 18360
AGGTGATTAT	GCTCTAACAG	AAGTAGCAAC	TGGTTTGTAT	TTGAAATTAA	CAGATGCTGG 18420
TTTAGCTAAA	GTGAATGACC	AAAACGCTGA	AAAACTGTG	AAAATCACTT	ATTCGGCAAC 18480
ATTGAATGAC	AAAGCAATTG	TAGAAGTACC	AGAATCTAAT	GATGTAACAT	TTAACTATGG 18540
TAATAATCCA	GATCACGGGA	ATACTCCAAA	GCCGAATAAG	CCAAATGAAA	ACGGCGATTT 18600
GACATTGACC	AAGACATGGG	TTGATGCTAC	AGGTGCACCA	ATTCCGGCTG	GAGCTGAAGC 18660
AACGTTTCAT	TTGGTTAATG	CTCAGACTGG	TAAAGTTGTA	CAAACTGTAA	CTTTGACAAC 18720
AGACAAAAAT	ACAGTTACTG	TTAACGGATT	GGATAAAAAAT	ACAGAATATA	AATTCGTTGA 18780
ACGTAGTATA	AAAGGGTATT	CAGCAGATTA	TCAAGAAATC	ACTACAGCTG	GAGAAATTGC 18840

TGTCAAGAAC	TGGAAAGACG	AAAATCCAAA	ACCACTTGAT	CCAACAGAGC	CAAAAGTTGT	18900
TACATATGGT	AAAAAGTTTG	TCAAAGTTAA	TGATAAAGAT	AATCGTTTAG	CTGGGGCAGA	18960
ATTTGTAATT	GCAAATGCTG	ATAATGCTGG	TCAATATTTA	GCACGTAAAG	CAGATAAAGT	19020
GACTCAAGAA	GAGAAGCAGT	TGGTTGTTAC	AACAAAGGAT	GCTTTAGATA	GAGCAGTTGC	19080
TGCTTATAAC	GCTCTTACTG	CACAACAACA	AACTCAGCAA	GAAAAAGAGA	AAGTTGACAA	19140
AGCTCAAGCT	GCTTATAATG	CTGCTGTGAT	TGCTGCCAAC	AATGCATTTG	AATGGGTGGC	19200
AGATAAGGAC	AATGAAAATG	TTGTGAAATT	AGTTTCTGAT	GCACAAGGTC	GCTTTGAAAT	19260
TACAGGCCCTT	CTTGCAGGTA	CATATTACTT	AGAAGAAACA	AAACAGCCTG	CTGGTTATGC	19320
ATTACTAACT	AGCCGTCAGA	AATTTGAAGT	CACTGCAACT	TCTTATTTCAG	CGACTGGACA	19380
AGGCATTGAG	TATACTGCTG	GTTCAGGTAA	AGATGACGCT	ACAAAAGTAG	TCAACAAAAA	19440
AATCACTATC	CCACAAACGG	GTGGTATTGG	TACAATTATC	TTTGCTGTAG	CGGGGGCTGC	19500
GATTATGGGT	ATTGCAGTGT	ACGCATATGT	TAAAAACAAC	AAAGATGAGG	ATCAACTTGC	19560
TTAAGTAAGA	GAGAAAGGAG	CCATTGATGA	CAATGCAGAA	AATGCAGAAA	ATGATTAGTC	19620
GTATCTTCTT	TGTTATGGCT	CTGTGTTTTT	CTCTTGTATG	GGGTGCACAT	GCAGTCCAAG	19680
CGCAAGAAGA	TCACACGTTG	GTCTTGCAAT	TGGAGAACTA	TCAGGAGGTG	GTTAGTCAAT	19740
TGCCATCTCG	TGATGGTCAT	CGGTTGCAAG	TATGGAAGTT	GGATGATTCG	TATTCCCTATG	19800
ATGATCGGGT	GCAAATTGTA	AGAGACTTGC	ATTCGTGGGA	TGAGAATAAA	CTTCTTCTT	19860
TCAAAAAGAC	TTCGTTTGAG	ATGACCTTCC	TTGAGAATCA	GATTGAAGTA	TCTCATATTC	19920
CAAATGGTCT	TTACTATGTT	CGCTCTATTA	TCCAGACGGA	TGCGGTTTCT	TATCCAGCTG	19980
AATTTCTTTT	TGAAATGACA	GATCAAACGG	TAGAGCCTTT	GGTCATTGTA	GCGAAAAAAA	20040
CAGATACAAT	GACAACAAAG	GTGAAGCTGA	TAAAGGTGGA	TCAAGACCAC	AATCGCTTGG	20100
AGGGTGTCGG	CTTTAAATTG	GTATCAGTAG	CAAGAGATGT	TTCTGAAAAA	GAGGTTCCCT	20160
TGATTGGAGA	ATACCGTTAC	AGTTCTTCTG	GTCAAGTAGG	GAGAACTCTC	TATACTGATA	20220
AAAATGGAGA	GATTTTGTG	ACAAATCTTC	CTCTTGGGAA	CTATCGTTTC	AAGGAGGTGG	20280
AGCCACTGGC	AGGCTATGCT	GTTACGACGC	TGGATACGGA	TGTCCAGCTG	GTAGATCATC	20340
AGCTGGTGAC	GATTACGGTT	GTCAATCAGA	AATTACCACG	TGGCAATGTT	GACTTTATGA	20400
AGGTGGATGG	TCGGACCAAT	ACCTCTCTTC	AAGGGGCAAT	GTTCAAAGTC	ATGAAAGAAG	20460
AAAGCGGACA	CTATACTCCT	GTTCTTCAAA	ATGGTAAGGA	AGTAGTTGTA	ACATCAGGGA	20520
AAGATGGTCG	TTTCCGAGTG	GAAGGTCTAG	AGTATGGGAC	ATACTATTTA	TGGGAGCTCC	20580

490

AAGCTCCAAC TGGTTATGTT CAATTAACAT CGCCTGTTTC CTTTACAATC GGGAAAGATA	20640
CTCGTAAGGA ACTGGTAACA GTGGTTAAAA ATAACAAGCG ACCACGGATT GATGTGCCAG	20700
ATACAGGGGA AGAAACCCTT GTATATCTTG ATGCTTGTTG CCATTTTGTT GTTTGGTAGT	20760
GGTTATTGTC TTACGAAAAA ACCAAATAAC TGATATTCAA TGTACATCAT TATGAATAGG	20820
ATAGCAGGCT GAAGGGAAGA CCAGAGTACT CTGAGGTGAT GTTAATCAGG AATCATGGTG	20880
ATGTGGCATG AATCATCAAT AACGGATATG AGGCTGGGCA GATTGTGCCA GCCTCATTGT	20940
GGGTATTGTT TTGTAAAACG ATAGGACTGG TCTGGTAATC ATTTTA	20986

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21040 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

CCCAGCAAAA AGCCATCCGA AGATGACTTT TTTGCTATTT AATTTCTGTA TAAGTTACTT	60
CCAAGCCACG CTTAACAGCT GGACGATTGG CAATTTTTTC TGCCCATTTT ACTAGATTTT	120
GATAACTTGA GGCATCCAAG AATTTTGCGAG AACCTTGGTA AAGATTTCCCT TGAACAACT	180
GTCCATACCA AGACCAGATA GCAATATCTG CAATCGTATA GTCATTGCCT GCAATATAAG	240
GTTTCTGAGC CAATTCCTTA TCCAATAAAT CCAACTGGCG TTCACTTCC ATCGTAAAC	300
GGTTAATAGG ATATTCCAAT TTTTCAGGAG CATAATTGAA GAAATGTCCA AATCCCCCAC	360
CTAGAAAAGG TGCTGCACCT GCTTGCCAGA ATAGCCAATT CAAAACCTCT ACCTTTTCCA	420
CAGGATTACT TGGTAAAAAG GCTCCAAATT TCTCAGCAAG GTAAAGAAGA ATATGAGCAG	480
ACTCAAAGAC TCTTACGTTT TCAGTACCTG ACTGGTCCAA TAAGGCTGGA ATCTTGGAAT	540
TTGGATTGAG CTTACAAAAG TCTGATCCGA ATTGATCCCC ATCCATGATA GCAATCTTAT	600
ACAAGTCGTA AGCCGCTTCC TTAAAACCAG CTTCTAGTAA TTCTTCCAAT AAGATAGTAA	660
CCTTCACACC ATTTGGTGTT CCCAGTGAAT AAAGCTGAAA AGCTTGTTCT CCTTTTGGCA	720
AGTTTTGTTC GAAACGGGCA CCTGCTGTTG GTCTGTTTAG CCCCCTAAAA GCTCCTTGAT	780
TACTAGCTTC ATCCTGCCAT ACGGTCGGTA ATTGATATGC TGACATCCGA AACCTCCCTT	840
AAATCGCATT CTTGTCAAAA CCGAGTTTGC GTTGAATAAA CTTAACGATT TCGACGATGA	900
TAATCATTGA GAAGCTTCCA GCCATAACAA TTCCCCATTG TGACAAGTCT AGTTTGGGTA	960
CGTGGAAGAT TCCTTCAAGC GGTCTACAA CGATTGTTGC CATGAGAAGG ATAAAGGATA	1020

491

CCAAGATGGA	CCAGTTAAAG	GTCTTAGACT	TGAATGGGCC	AACTGTCAAG	ATGGATTGGT	1080
AGACAGACTT	GACATTGTAG	GCATGGAAGA	GCTGAATCAA	ACCAAGGGTT	GCAAAGGCCA	1140
TCGTTAGGGC	ATCTGCATGA	ATAGCATGAT	TGTCACCCAC	ATGAACTGGG	TAAGCAATCG	1200
CAAGGCCATA	AACACTCATA	ACAAGAGCTG	CTTGAGTAC	ACCTTGATAA	ATGATAGAAC	1260
TCAAAACACC	ACCTGAGAAG	AAGCTTGCCT	TGCGTCCACG	TGGTTTATGA	TTCATGACAC	1320
CAGGTTCGCG	AGGTTCAACA	CCAAGAGCGA	TAGCTGGGAA	GGTATCCGTT	ACCAAGTTGA	1380
TCCACAAAAG	ATGAACCGGC	TGTAAGACAT	CCCAACCAA	CAAGGTTGAT	AGGAAGATGG	1440
TTAATACTTC	AGCAGTATTA	GCAGAAAGTA	GGTACTGAAT	AGTCTTTTGA	ATGTTTGAGA	1500
AGACCTTACG	TCCTTCTTCC	ACTGCGACGA	TAATAGTCGC	AAAGTTATCA	TCTGCAAGAA	1560
TCATATCAGA	AGCCCCCTTA	GAAACCTCTG	TACCAGTGAT	TCCCATACCG	ATACCGATAT	1620
CGGCTGTTTT	CAGAGCTGGC	GCGTCATTGA	CACCGTCACC	TGTCATGGCA	ACGACTTTAC	1680
CTTGTTTTTG	CCAAGCCTTG	ACGATACGAA	CCTTGTTGTC	TGGAGACACA	CGGGCATAAA	1740
CAGAGTATTG	ACCAACGACT	TTTTCAAATT	CTTCATCTGA	CAGTTCATTG	AGTTCAGCAC	1800
CAGTTAAAC	GTGACCTTCT	GTATCGTTTG	CGTCAATGAT	TCCCAAACGT	TTGGCAATGG	1860
CTTCGCTGT	GTCTTGGTGG	TCACCTGTAA	TCATAATTGG	ACGGATTCCC	GCTTCCTTAG	1920
CCACACGAAC	AGCCTCAGCG	GCTTCAGGAC	GTTCAGGGTC	AATCATCCCA	ATCAAACCAG	1980
TAAAAATTAA	ATCATTTTCA	AGCTCTTCAG	AAGTGAGATT	TTCTGGAATA	CTATCGATAA	2040
TCTTATAAGC	ACCTGCAAGG	ACACGCAAGG	CTTGATGAGC	CATTTCAGAA	TTGTTTGTAC	2100
GAATGAGATT	TGTAACCTTC	TCATCAATCG	GAGCAATATC	CCCAGCCTTA	TCACGAAGAA	2160
GACAACGTTT	TAAGAGTTGG	TCTGGCGCAC	CCTTGACTGC	TACAAGGAAA	CGACCATCTG	2220
GCAATGGGTG	AACTGTTGAC	ATGAGCTTAC	GGTCAGAGTC	AAATGGCAAT	TCAGCTACAC	2280
GAGGATATTT	CTCTAAGAAA	CCTTTGACAT	CATAGCCCTT	GTCCAAGGCA	TATTGGATAA	2340
AGGCTGTTTC	GGTTGGGTCA	CCAATCAAGT	TACCTTCCAC	ATCGATTTTC	GTATCATTGG	2400
CCAAGACAAC	TGAACGAAGT	AGTGGCATT	CAAGACCTAG	TTCAATATCA	TCAGCTGAGT	2460
CATGTAGAAC	CGCATCGTAG	AAGACTTTTT	CGACTGTCAT	CTTGTTTATA	GTCAGCGTAC	2520
CAGTCTTATC	AGAAGCGATG	ATTTCAAGTG	AACCAAGTGT	TTCAACTGCT	GGCAACTTAC	2580
GAACGATGGA	ATGTCGTTTG	GCCAAAACCT	GAGTACCAAG	AGAAAGAACG	ATGGTAACGA	2640
TAGCAGGAAG	TCCTTCTGGA	ATGGCTGCAA	CGGCAAGGGC	AACAGAAGTC	AACAACCTAC	2700
CAAGTGGATT	TTTCCCTTGA	ATGAAGACAC	CCACTACAAA	AGTAACAAGG	GCAATGACCA	2760

492

AGATAGCATA	GGTCAAGACC	TTAGAAAGGT	TGTTCAAATT	TTGTTTGAGT	GGTGTATCAG	2820
TCTCATCCGC	ATCTTGAAGC	ATACCAGCAA	TATGACCAAC	TTCAGTGTAC	ATACCTGTAT	2880
TGACAACAAC	ACCCATCCCA	CGACCATAGG	TTACGTTTGA	GTTTTGGAAG	GCCATGTTGA	2940
CACGGTCACC	AATACCAGCA	TCTGTCGCAA	GCTCGACTGA	CAAGTCTTTT	TCGACTGGTA	3000
CAGATTCACC	TGTCAAGGCT	GCTTCTTCAA	TTTTAAGAGA	GTTGGCTTCT	ATCAAACGTA	3060
GGTCCGCTGG	TACCACGTCA	CCTGCTTCAA	GGGCAACGAT	ATCGCCTGGT	ACCAATTCTT	3120
TAGAGTCAAT	CTCTGCCATG	TGTCCATCAC	GAAGAACGCG	GGCAACTGGA	CTAGACATGG	3180
ATTTGAGGGC	TTCAATAGCT	TCTTCAGCTT	TTCCTTCTTG	GTAAACACCA	AAGGCAGCGT	3240
TGATGATAAC	CACAGCTAGG	ATGATAATGG	CATCTGCGAT	ATCTTCCCCA	CCAGAAGTCA	3300
CGACTGACAA	GATTGctGCC	GCAACTAGGA	TGATAATCAT	CAAAFCCTTA	AATTGCTCGA	3360
TGAATTTGAC	CAAGATTGAT	CGTTTCTCGC	CTTCTTCGAG	TTCATTGTGC	CCAAATTCGG	3420
CAAGGCGCTT	TTCCGCCTCA	CTTGATGACA	AACCTTGCTC	GGTCGCATCC	ACAGCCTGCA	3480
AGACCTCTTC	AGGGCTCTGA	GTATAAACG	CTTGGCGTTT	TTGTCTTTTT	GACATGTGTC	3540
TCCTCCTTGA	CATTGTGTGC	AAAACAGACT	CTCTTTCTGT	CATAGCTTTT	CACGACAAAC	3600
AAAAAGAAAC	CTGTTAATCA	TAACAAGTCT	CGCTGTTTAA	GATAGGGCCG	GAAAGCATAAC	3660
TTTTTCAGCAT	AAAATTCGGA	ATGACGACAC	TATCACAGGT	TTCTGCCAGC	TACTCCCTTG	3720
AGTAGTACCA	TTATACCAA	TTTTGGGGAG	TTTTCAAAGA	GTAAAACTG	CCTTATTTGA	3780
ATTTTTCCTT	GAAAACCACT	ATAATGGTAG	AATGCTATGT	GACTAGAAAG	GAAGTTGAAT	3840
GAAGCAATCT	ATCTCAAATC	TCAAGTTAGC	TGAGCGTGGA	GCCATTATCA	GTATTTGCAC	3900
CTATTTGATC	TTGTCTGCAG	CCAAATTAGC	AGCTGGTCAT	CTCCTTCATT	CATCCAGTTT	3960
GGTGGCCGAT	GGTTTTAATA	ACGTATCGGA	CATCATTGGA	AATGTGGCCC	TCTTAATCGG	4020
GATTCGGATG	GCGCGCCACC	TGCAGACCGT	GACCACCGTT	TTGGTCATTG	GAAGATTGAA	4080
GATTTGGCAA	GCTTGATCAC	TTCTATCATC	ATGTTCTATG	TCGGTTTCGA	TGTTCTAAGA	4140
GATACCATTTC	AAAAGATTCT	CAGTCGGGAA	GAAACGGTCA	TTGATCCTCT	TGGTGCAACT	4200
CTAGGAATCA	TTTCTGCAGC	GATTATGTTT	GTGGTCTATC	TCTACAATAC	TCGCCTCAGT	4260
AAGAAATCCA	ACTCCAATGC	GCTGAAGGCA	GCTGCTAAGG	ACAATCTTTC	TGACGCTGTT	4320
ACCTCACTTG	GAACCGCCAT	TGCCATCCTA	GCTAGTAGTT	TCAATTATCC	GATTGTGGAT	4380
AACTGGTTG	CTATCATCAT	CACTTTCTTT	ATCTTGAAGA	CTGCCTATGA	TATCTTCATC	4440
GAGTCTTCCT	TTAGTCTTTC	AGATGGCTTT	GACGACCGCC	TGCTCGAGGA	CTACCAAAAG	4500
GCTATCATGG	AAATTCCCAA	AATCAGCAAG	GTCAAATCGC	AAAGAGGTCG	CACCTACGGT	4560

493

AGCAACATCT ACCTGGATAT TACACTAGAG ATGAATCCTG ACTTGTCTGT TTTTGAAAGC 4620
CATGAAATCG CGGATCAGGT CGAGTCTATG CTGGAGGAGC GTTTTGCGT CTTTGATACC 4680
GATGTCCATA TCGAACCAGC ACCTATCCCT GAGGATGAAA TTTTAGACAA TGTCTATAAA 4740
AAATTGCTTA TGCCTGAACA ATTGATTGAC CAAGGAAACC AACTAGAAGA ACTCTTGACT 4800
GATGATTTTG TCTATATTCG CCAAGATGGA GAGCAGATGG ATAAAGAGGC TTATAAGACC 4860
AAAAAAGAGT TAAATTCCTGC TATCAAGGAC ATTCAAATTA CTTCCATCAG TCAAAAAACC 4920
AAACTCATCT GCTATGAGTT AGATGGTATC ATCCATACCA GTATCTGGCG TCGCCACGAA 4980
ACCTGGCAAA ATATCTTTCA TCAAGAAACC AAAAAAGAAT AGAGAAATCC TTTTCATGAGA 5040
CGGGATTTTT CTATTCTTTT ATACTCAATA AAAATCAAAG TGCAAATTAG GAAGCCGGTC 5100
ACAGGCTGTA CTTGAGTCGG CAATGTGAAG CCGACATAGT TTGCACTTTG ATTTTCGAAT 5160
AGTCTTAACT ATCAAATCA CTGAGATACT CATAGCGTTC GTATTTTTC AAGAGTGCTT 5220
CATTTTTCTC ATCCAATTCT TTTTGGAGAG TAGCCAGCTT ACCAAAGTCA GAGCCGTTAG 5280
CCTGCATTC CTCTTCAATA GCAGCGATAC GTTTTCCAA GGTTTCAATA TCACCTTCAA 5340
TACTTGCCCA CTCCTGCTTT TCTTGGTAGG TCATGCGTTT CTTGTCTTCT CGAACCTTGA 5400
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CATCAAGATA GTCGGTGTA TGACCAAAGA AAGGACGAAT CTGCCATCC TCAAAGCGA 5520
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GAGAGAAATA GCGATGCGA ACAGTTTCCC CAATCACAAAC TTGTCTGCT GTCGGCTCAA 5940
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AGGCAAAGGA AACATCCTGA AACTCGATGA CTTTCTTCCC AATCCGACTG GTTTCAAAGT 6120
TCATAGTCAA GTCTGTCTCA GCACTACTGC CTGAACTTC CTTTTTCAGA TCATGGAAAC 6180
GATTGATACG AGCTTGTTGC TTGGTCGCAC GCGCCTGCGG TTGTCTGCGC ATCCAGGCCA 6240
ATTCTTGTTT GTAGAGTTGT TCTTTTTTGT GAAGAAGAGC CGCGTCGCGC TCATCCTGTT 6300

494

CCGCCTTTAG GCGAACATAG TCCTGGTAAT TTCCCTGGTA CTCGGTCAAG CCTGCACGAT	6360
CCAACTCGAA AATCCGTGTT GACAAAGCGT CTAAGAAATA ACGATCGTGA GTGATAAAAA	6420
GGACGGTCTT CTTAGAATTT TTCAAAAAGA GGGTCAGCCA CTCAATAATC GCAATATCCA	6480
GATGGTTGGT CGGCTCATCC AAAAGCAAGA GGTGCTGGTT GCCAAGTAAG ACTTGTGCCA	6540
ACTGTACCCG TCTTCTCAGA CCACCTGACA ATTCCCCAAC AGGAGTAGAT AAGTCTTGAA	6600
TGCCCAATTT GCTAAGAACG GTCTTGACCT GACTTTCGAT TTCCAAGCT TGGAGAGAGT	6660
CCATCTCTGC CATGACACGT TCCAAACGCG CCTGCTTGTC CTCACTATAG TCGAGCATAA	6720
TCAATTCATA CTCACGAATG AGCTGGATTT CCTTGAGTTC ACTAGATAGA ACCGTATCCA	6780
AAACTGTCTT TCTATCATCA AAATCAGGAT CCTGAGTCAA GTAACCAATC TGGTAATCAT	6840
TTTTAGCTGA AAAAGGACTG ACATCCCCAT CAAATCCAGA AACACCAGAA AGGACGTCCA	6900
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CAATTCCTCA TCGACAATGG CAAACTCAAT CTCTGTTAAA ATCTCTCCCA AGTCTGGGCC	7140
TGGCTGATAG CCATATTCCT TGATCAAAAT ACCGCCATTA ATCTGAATCT CTTTCTTGTC	7200
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AGCTTGACGA AGATTTTCAG CCTGTAAAAG CAAATCTATG TCAAAGCGAT AACAATCTCG	7320
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GGCAAATGG CGTGAGGTCT TCCAAGATTT CAAAATGAC TGCGCATTTT CAATCTCCAA	7440
AGCCCATAGT AAAGCCGCCC AGGCTTGTTT AGAGGATTCA AAAGTAAAAT CAGTCTCCAA	7500
ATCAAACAGT CTGTTGAGCT TGTCTGGCT AGATGCCATA TCAGGGAGAT AGTCATAAGC	7560
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AGCTTTAAAT GTTCTGGCT CAAGTGCAAA ACCAAGACTA GCCTGAAAAC GGAAACCACG	7740
CATAATCCGT AAAGCATCTT CGTTGAAACG CTCACTAGCC ACTCCAACG CTCGCAAGAC	7800
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CTCATACTCC TCATCCCCAT CTAAGACCAA GACGGTTCCA TGCTCGATTC CGATATCGGC	8040
TGTTCGCGGA AAAATCTGCT TGGTCTCTTC TGGATAAGAA GACGTCGCAA TATCCACATC	8100

495

GTGGATAGGG CTATGGAGAA GGCATCTCG AACAGAGCCC CCAACAAAAT AAGCCTCAAA	8160
GCCTGCTTCT TTAATTTTCT CTAATACTGG TAAAGCCTTC TGAAATTCAG AAGGCATTTG	8220
CGTTAATCTC ATAATAAGTG TTCTAATCCA TAGACAAGCT CATGACGCTT GACAACTTCT	8280
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GAAAGGCAAG ACAGGCATCT TTTTCAAGA GGCAGGTAGT CCGTGTTCAA TTTCTAAGAT	9240
ACAAGGCATC TTAAGTAGCC TAGAAGCGCC AACTAAATCA CTGGAATATA ACCCAGAGCA	9300
ATACTTCCTG CTCCTAGGTG CGTTCCAATG AACTACCAA ATGTAGCAAG TGAAACATCC	9360
GAACCAAGC CAAAATCAAG CAAGTGCTGA CGCAATCTT CAGCCTTTTC AGGAGCATTC	9420
CCATGAATGA CAATGACCCG GTATTGACCT GAAGCCGTG TTTCTTGAT AATTTCAATT	9480
AAGCGCTTGG TGGCCTTCTT TTCAGTACGA ACTTTTTCGT AACTTCAAT CACACCTTGA	9540
TCGTTAAAAA AAAGGATTGG CTTAATGCTA AGCAAATGCG CAAAATGGC AGCCCCATTT	9600
GAAAGGCGTC CACCTTTTAC CAAATGATCC AAGTCATCTA CCATGATAAA GGCTGACGTA	9660
CGGCTGATTT GAATGGCTAG CTTATCCTGA ATGCTGGCAA AATCATCGCC CTGATCACGC	9720
CAATTAAGA CGCTTTCAAC CATGATGCCT AGGGGAGCAC TTGTAATCAA AGTGTCTGGG	9780
AAAGCAATGG TTAAGCCCTC ATAGTCATCG ACCATATACT GGATATTTTG GTAAAAACCT	9840

496

GAAATTCCAG	AAGATAGGAA	AAGCCCCAAG	GCATGTGTAT	AGCCTTGTTT	TTTGAGCGAA	9900
GTTAAGATCT	CATCTAACTT	GGCAATACTT	GGTTGACTGG	TCTTAGGCAA	TTCAGAAGCC	9960
TGAGCCATTT	TTTGGTAAAA	TTCTTCAGCA	GACAGATTGA	TGCCTTCGAC	ATATTCTCTCA	10020
CCATCAATAT	TGACAGGAAT	ATCCAAGACA	AACAAGTCTT	CTCTTTGCAA	GATCTCTGCA	10080
CTGAGATAAG	CAGAGGAATC	TGTGAAAACA	GCTAATTTCA	TATTAGAACT	CCAAATTAAT	10140
TCCTGGTAAG	TCTAATGCAA	TTTCAGTCAC	TTCTGTAAGT	AAACGATTGA	GCATGTTCAA	10200
ACATGGACGA	GCCAAGGTTT	CCACCTCTTC	TTGGTTCAAT	TCACTTGGTT	CATTGACAAAT	10260
ACGGCCATCG	ATATGGTTTA	CTTGTGAGAT	TGTTCCTACT	ATGACAAACT	TATCAAATAC	10320
AATCATAAAG	CTCAAGATGA	CAATCAAGGA	AGTCACTTGA	TTTTCTTGGT	CATGTTGGAG	10380
CAATTGGAAG	TTTCAATCCA	CCTTGGTTTC	AGGAGCTCCA	TTTTCATTTT	CCCATTCAAA	10440
ATTACGCGCA	TCAAAATGAT	ACTGACTAAC	AAATCTTTGT	TCACGTTTAA	GATTCATGTC	10500
TTTCTCCATC	GGCTACAATA	TTATAAGCTA	TTGTACCATA	ATTTTTTATT	TTCATCTAGT	10560
TTTCTAGGAT	TTAGTCAATC	CCAATTTTCA	CACGAAGTAC	ATCTGTGATG	GTATCAACAT	10620
AGTAGTTTAC	TTCTTCTGTT	GTAGGCGCTT	CTGCCATAAC	ACGCAAGAGG	GGTCTCTGTT	10680
CACTTGGACG	AACAAGGATA	CGGCCGTTCC	CCGCCATTTC	TTCTTCCATC	TTCTCGATGA	10740
TGGCCTTGAT	AGCTGGCACT	TCCATGGCCT	TTTCTTTCAT	GACGTTTTTC	ACTCGGATAT	10800
TAACATAATT	TTGTGGATAA	ATCGTTACTT	CTGCCGCCAA	CTCTGATAAG	CTCTTACCAG	10860
TTTCTTTCAT	GATTTTAGTC	AATTGAACTG	CTGATAATTG	ACCATCACCT	GTGGTATTGT	10920
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ATTGTCCTTT	TTCAAGAAAG	TATTTTCCGA	TGATGTACAT	AATCTTGTC	CCATCAACGA	11160
TGTCACCATT	CTCATCAACA	GCAATCAAGC	GGTCACTGTC	TCCATCAAAG	GCCAAACCAA	11220
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TAAGGTTGAT	GTTAAGACCG	TCTGGTGTTC	CCCCGATAAC	CGTCAATTGG	GCACCAAGGT	11340
CTGCAAAGAT	TTGACGGGCA	CTGGTAGAAG	CTGCTCCATT	AGCTGTATCC	AAGGCAACCT	11400
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TGGATAATCT	ACCAAAATTC	CTAAGCCTTC	TGCACTTGGA	CGAGGAAGAG	TGTCTTCCTC	11520
AGCATCTAGC	AAGGCTTCAA	TTTCTGCTTC	TTTTTCATCA	TCTAGTTTGA	AGCCATCACC	11580
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497

GGCACTTGCT CCTTCAGTTT CAACCAAGTA AGCTACTGCT GGTGTTGCAA GGACACCAAG	11700
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ATCTTTACCT TATCCTTCTG AGCCTTCTTA CCAATCTTGA CTGTAATTTT TTGCGGAGTC	12360
GCCACAGCGG TCAGCCCATT GGGTAAATCT TCAATGCTCA AAGGAACTTC AATCGTTCCA	12420
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498				
GATTTGAGCT	AAAATAAACA	CCAAAACCTCC	ACGTACCAAA	ATCATAATCT TGGTTCCTGC 13440
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